Intrepid Potash – New Mexico, LLC
Post Office Box 101
Carlsbad, NM 88221
575.234.3881

December 16, 2021

NMED - Air Quality Bureau
Permitting Section
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816
Attn: Ms. Vanessa Springer

RE: Intrepid Potash – New Mexico, LLC
NSR Application for North Compaction Plant
Proposed HS Feed Project and Engine Flexibility
NSR Permit 321 Significant Revision

Dear Ms. Springer:

Intrepid Potash New Mexico, LLC ("Intrepid") is submitting this request and the enclosed application package for a NSR significant revision to allow the installation of a new HS Feed System and request portable engine operational flexibility. Intrepid is submitting this application per 20.2.72.200.A.(2) for the Intrepid North Plant to include portable non-road engines in the facility permit, add a white standard potash system consisting of a bucket elevator, screens, conveyor transfer and reject material truck loading, and to widen the public road buffer zone.

Potash is transported to North Plant for compaction, sizing, and sales to third party customers by truck or rail. Currently, white standard potash product (HS) is stored in North Domes 1 and 2. Current loading practice of this product into rail cars and trucks requires transporting HS product from Domes 1 and 2 by wheel loader to an outdoor portable screening unit located near CV300-01 (to ensure product sent to the Safe Food Safe Feed (SFSF) Loadout meets required size specifications). The screened product is transported from the screen by portable conveyor onto conveyor CV300-01 which feeds the SFSF loadout 100-ton and 300-ton product loading bins.

Intrepid is proposing to eliminate the wheel loader and the portable screening/conveying system by locating HS product in Domes 1 and 2 and installing a new, permanent, mechanical system within a new structure that discharges onto existing CV300-01 conveyor. The new structure is to be located between Dome 1 and the existing CV300-01 conveyor and is to be fully enclosed to protect product from the weather. A dust collection system will be installed for the transfer points. Drawings and figures within the enclosed application package illustrate the new system.

In addition to the HS product project, Intrepid is proposing to incorporate the use of non-road diesel engines at the North Compaction Plant up to a combined total of 1000 HP of Tier 2 or greater engines. On occasion nonroad engines are necessary to meet various project needs around the facility. Intrepid is

requesting the flexibility to locate nonroad engines no closer than 110 meters to the restricted facility boundary. The widening of the public road buffer is proposed and any intraplant activities included in the operational flexibility of N-EP-04/N-EP-05 will take place north of the truck dump ramp/road.

We have included the required application processing fee of $500, please let us know. Please contact me if you have any questions about this submittal (601.259.5217 or ken.faulkner@intrepidpotash.com).

Sincerely,

Ken L. Faulkner

Ken Faulkner, PE
Intrepid Environmental Manager

Enclosure

Mail Application To:		**For Department use only:**
New Mexico Environment Department Air Quality Bureau Permits Section 525 Camino de los Marquez, Suite 1 Santa Fe, New Mexico, 87505 Phone: (505) 476-4300 Fax: (505) 476-4375 www.env.nm.gov/aqb		AIRS No.:

Universal Air Quality Permit Application

Use this application for NOI, NSR, or Title V sources.

Use this application for: the initial application, modifications, technical revisions, and renewals. For technical revisions, complete Sections, 1-A, 1-B, 2-E, 3, 9 and any other sections that are relevant to the requested action; coordination with the Air Quality Bureau permit staff prior to submittal is encouraged to clarify submittal requirements and to determine if more or less than these sections of the application are needed. Use this application for streamline permits as well. See Section 1-I for submittal instructions for other permits.

This application is submitted as (check all that apply)**:** ☐ Request for a No Permit Required Determination (no fee)
☐ **Updating** an application currently under NMED review. Include this page and all pages that are being updated (no fee required).
Construction Status: ☐ Not Constructed ☑ Existing Permitted (or NOI) Facility ☐ Existing Non-permitted (or NOI) Facility
Minor Source: ☐ a NOI 20.2.73 NMAC ☐ 20.2.72 NMAC application or revision ☐ 20.2.72.300 NMAC Streamline application
Title V Source: ☐ Title V (new) ☐ Title V renewal ☐ TV minor mod. ☑ TV significant mod. TV Acid Rain: ☐ New ☐ Renewal
PSD Major Source: ☐ PSD major source (new) ☐ minor modification to a PSD source ☐ a PSD major modification

Acknowledgements:

☑ I acknowledge that a pre-application meeting is available to me upon request. ☐ Title V Operating, Title IV Acid Rain, and NPR applications have no fees.

☑ $500 NSR application Filing Fee enclosed OR ☐ The full permit fee associated with 10 fee points (required w/ streamline applications).

☑ Check No.: 814211 in the amount of $500

☑ I acknowledge the required submittal format for the hard copy application is printed double sided 'head-to-toe', 2-hole punched (except the Sect. 2 landscape tables is printed 'head-to-head'), numbered tab separators. Incl. a copy of the check on a separate page.

☐ I acknowledge there is an annual fee for permits in addition to the permit review fee: www.env.nm.gov/air-quality/permit-fees-2/.

☐ This facility qualifies for the small business fee reduction per 20.2.75.11.C. NMAC. The full $500.00 filing fee is included with this application and I understand the fee reduction will be calculated in the balance due invoice. The Small Business Certification Form has been previously submitted or is included with this application. (Small Business Environmental Assistance Program Information: www.env.nm.gov/air-quality/small-biz-eap-2/.)

Citation: Please provide the **low level citation** under which this application is being submitted: **20.2.72.200.A.(2) NMAC**
(e.g. application for a new minor source would be 20.2.72.200.A NMAC, one example for a Technical Permit Revision is 20.2.72.219.B.1.b NMAC, a Title V acid rain application would be: 20.2.70.200.C NMAC)

Section 1 – Facility Information

Section 1-A: Company Information

AI # if known (see 1st 3 to 5 #s of permit IDEA ID No.): **29939**

Updating Permit/NOI #:**321M7**

1	Facility Name: **North Plant**	Plant primary SIC Code (4 digits): **1400** Plant NAIC code (6 digits): **212391**
a	Facility Street Address (If no facility street address, provide directions from a prominent landmark): **484 North State Highway 243, Carlsbad, NM 88220**	
2	Plant Operator Company Name: **Intrepid Potash – New Mexico, LLC**	Phone/Fax: **(575) 234-3881**
a	Plant Operator Address: **P.O. Box 101, Carlsbad, NM 88221**	
b	Plant Operator's New Mexico Corporate ID or Tax ID: **26-1501877**	

3	Plant Owner(s) name(s): **Intrepid Potash – New Mexico, LLC**	Phone/Fax: **(575) 234-3881**
a	Plant Owner(s) Mailing Address(s): **P.O. Box 101, Carlsbad, NM 88221**	
4	Bill To (Company): **Intrepid Potash – New Mexico, LLC**	Phone/Fax: **(575) 234-3881**
a	Mailing Address: **P.O. Box 101, Carlsbad, NM 88221**	E-mail: **ken.faulkner@intrepidpotash.com**
5	☑ Preparer: ☐ Consultant:	Phone/Fax: **(575) 234-3881**
a	Mailing Address: **P.O. Box 101, Carlsbad, NM 88221**	E-mail: **ken.faulkner@intrepidpotash.com**
6	Plant Operator Contact: **Robert Baldridge, Sr. VP-NM Operations**	Phone/Fax: **(575) 234-3600**
a	Address: **P.O. Box 101, Carlsbad, NM 88221**	E-mail: **robert.baldridge@intrepidpotash.com**
7	Air Permit Contact: **Ken Faulkner**	Title: **Environmental Manager**
a	E-mail: **ken.faulkner@intrepidpotash.com**	Phone/Fax: **(575) 234-3881**
b	Mailing Address: **P.O. Box 101, Carlsbad, NM 88221**	
c	The designated Air permit Contact will receive all official correspondence (i.e. letters, permits) from the Air Quality Bureau.	

Section 1-B: Current Facility Status

1.a	Has this facility already been constructed? ☑ Yes ☐ No	1.b If yes to question 1.a, is it currently operating in New Mexico? ☑ Yes ☐ No
2	If yes to question 1.a, was the existing facility subject to a Notice of Intent (NOI) (20.2.73 NMAC) before submittal of this application? ☐ Yes ☑ No	If yes to question 1.a, was the existing facility subject to a construction permit (20.2.72 NMAC) before submittal of this application? ☐ Yes ☐ No
3	Is the facility currently shut down? ☐ Yes ☑ No	If yes, give month and year of shut down (MM/YY): **N/A**
4	Was this facility constructed before 8/31/1972 and continuously operated since 1972? ☐ Yes ☑ No	
5	If Yes to question 3, has this facility been modified (see 20.2.72.7.P NMAC) or the capacity increased since 8/31/1972? ☐Yes ☐No ☑N/A	
6	Does this facility have a Title V operating permit (20.2.70 NMAC)? ☑ Yes ☐ No	If yes, the permit No. is: **P261-R1**
7	Has this facility been issued a No Permit Required (NPR)? ☐ Yes ☑ No	If yes, the NPR No. is:
8	Has this facility been issued a Notice of Intent (NOI)? ☐ Yes ☑ No	If yes, the NOI No. is:
9	Does this facility have a construction permit (20.2.72/20.2.74 NMAC)? ☑ Yes ☐ No	If yes, the permit No. is: **321M7**
10	Is this facility registered under a General permit (GCP-1, GCP-2, etc.)? ☐ Yes ☑ No	If yes, the register No. is:

Section 1-C: Facility Input Capacity & Production Rate

1	What is the facility's maximum input capacity, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: **300 tph**	Daily: **7,200 tpd**	Annually: **1,036,000 tpy**
b	Proposed	Hourly: N/A	Daily: N/A	Annually: N/A
2	What is the facility's maximum production rate, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: **300 tph**	Daily: **7,200 tpd**	Annually: **1,036,000 tpy**
b	Proposed	Hourly: **N/A**	Daily: **N/A**	Annually: **N/A**

Section 1-D: Facility Location Information

1	Section: **18**	Range: **32E**	Township: **20S**	County: **Lea**	Elevation (ft): **3,650 ft msl**
2	UTM Zone: ☐ 12 or ☑ 13			Datum: ☐ NAD 27 ☐ NAD 83 ☑ WGS 84	
a	UTM E (in meters, to nearest 10 meters): **612,531.00 m**			UTM N (in meters, to nearest 10 meters): **3,604,282.00 m**	
b	**AND** Latitude (deg., min., sec.): **32°34'12.96"N**			Longitude (deg., min., sec.): **103°48'4.29"W**	
3	Name and zip code of nearest New Mexico town: **Carlsbad 88220**				
4	Detailed Driving Instructions from nearest NM town (attach a road map if necessary): **From Carlsbad, New Mexico, drive approximately 26 miles in east-northeast direction along US62 / US180. At NM-243, turn left (north) for approximately 3 miles to destination on the left.**				
5	The facility is **28** (distance) miles **ENE** (direction) of **Carlsbad** (nearest town).				
6	Status of land at facility (check one): ☑ Private ☐ Indian/Pueblo ☑ Federal BLM ☐ Federal Forest Service ☐ Other (specify) **Land is comprised of both private (Intrepid Potash) and BLM land**.				
7	List all municipalities, Indian tribes, and counties within a ten (10) mile radius (20.2.72.203.B.2 NMAC) of the property on which the facility is proposed to be constructed or operated: **N/A**				
8	**20.2.72** NMAC applications **only**: Will the property on which the facility is proposed to be constructed or operated be closer than 50 km (31 miles) to other states, Bernalillo County, or a Class I area (see www.env.nm.gov/aqb/modeling/class1areas.html)? ☐ Yes ☑ No (20.2.72.206.A.7 NMAC) If yes, list all with corresponding distances in kilometers:				
9	Name nearest Class I area: **Carlsbad Caverns**				
10	Shortest distance (in km) from facility boundary to the boundary of the nearest Class I area (to the nearest 10 meters): **68.2 km**				
11	Distance (meters) from the perimeter of the Area of Operations (AO is defined as the plant site inclusive of all disturbed lands, including mining overburden removal areas) to nearest residence, school or occupied structure: **>15 km**				
12	Method(s) used to delineate the Restricted Area: **Rugged undeveloped terrain with some fencing and gates utilized in developed areas.** "**Restricted Area**" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area.				
13	Does the owner/operator intend to operate this source as a portable stationary source as defined in 20.2.72.7.X NMAC? ☐ Yes ☑ No A portable stationary source is not a mobile source, such as an automobile, but a source that can be installed permanently at one location or that can be re-installed at various locations, such as a hot mix asphalt plant that is moved to different job sites.				
14	Will this facility operate in conjunction with other air regulated parties on the same property? ☑ No ☐ Yes If yes, what is the name and permit number (if known) of the other facility?				

Section 1-E: Proposed Operating Schedule (The 1-E.1 & 1-E.2 operating schedules may become conditions in the permit.)

1	Facility **maximum** operating ($\frac{\text{hours}}{\text{day}}$): **24**	($\frac{\text{days}}{\text{week}}$): **7**	($\frac{\text{weeks}}{\text{year}}$): **52**	($\frac{\text{hours}}{\text{year}}$): **8760**		
2	Facility's maximum daily operating schedule (if less than 24 $\frac{\text{hours}}{\text{day}}$)? Start: **N/A**	☐AM ☐PM	End: **N/A**	☐AM ☐PM		
3	Month and year of anticipated start of construction: May 2022					
4	Month and year of anticipated construction completion: October 2022					
5	Month and year of anticipated startup of new or modified facility: October 2022					
6	Will this facility operate at this site for more than one year? ☑ Yes ☐ No					

Section 1-F: Other Facility Information

1	Are there any current Notice of Violations (NOV), compliance orders, or any other compliance or enforcement issues related to this facility? ☐ Yes ☑ No If yes, specify:		
a	If yes, NOV date or description of issue: **N/A**		NOV Tracking No: **N/A**
b	Is this application in response to any issue listed in 1-F, 1 or 1a above? ☐ Yes ☑ No If Yes, provide the 1c & 1d info below:		
c	Document Title: **N/A**	Date: **N/A**	Requirement # (or page # and paragraph #): **N/A**
d	Provide the required text to be inserted in this permit: **N/A**		
2	Is air quality dispersion modeling or modeling waiver being submitted with this application? ☑ Yes ☐ No		
3	Does this facility require an "Air Toxics" permit under 20.2.72.400 NMAC & 20.2.72.502, Tables A and/or B? ☐ Yes ☑ No		
4	Will this facility be a source of federal Hazardous Air Pollutants (HAP)? ☑ Yes ☐ No		
a	If Yes, what type of source? ☐ **Major** (☐ ≥10 tpy of any single HAP **OR** ☐ ≥25 tpy of any combination of HAPS) **OR** ☑ **Minor** (☐ <10 tpy of any single HAP **AND** ☐ <25 tpy of any combination of HAPS)		
5	Is any unit exempt under 20.2.72.202.B.3 NMAC? ☑ Yes ☐ No		
a	If yes, include the name of company providing commercial electric power to the facility: **Xcel Energy** Commercial power is purchased from a commercial utility company, which specifically does not include power generated on site for the sole purpose of the user.		

Section 1-G: Streamline Application **(This section applies to 20.2.72.300 NMAC Streamline applications only)**

1	☐ I have filled out Section 18, "Addendum for Streamline Applications."	☐ N/A (This is not a Streamline application.)

Section 1-H: Current Title V Information - Required for all applications from TV Sources

(Title V-source required information for all applications submitted pursuant to 20.2.72 NMAC (Minor Construction Permits), or 20.2.74/20.2.79 NMAC (Major PSD/NNSR applications), and/or 20.2.70 NMAC (Title V))

1	Responsible Official (R.O.) **Robert Baldridge** (20.2.70.300.D.2 NMAC):		Phone: **(575) 234-3600**
a	R.O. Title: **Sr. VP-New Mexico Operations**	R.O. e-mail : **robert.baldridge@intrepidpotash.com**	
b	R. O. Address: **P.O. Box 101, Carlsbad, NM 88221**		
2	Alternate Responsible Official (20.2.70.300.D.2 NMAC): **Roy Torres**		Phone: 575-234-3701
a	A. R.O. Title: **Operations Manager**	A. R.O. e-mail: **roy.torres@intrepidpotash.com**	
b	A. R. O. Address: **P.O. Box 101, Carlsbad, NM 88221**		
3	Company's Corporate or Partnership Relationship to any other Air Quality Permittee (List the names of any companies that have operating (20.2.70 NMAC) permits and with whom the applicant for this permit has a corporate or partnership relationship): **N/A**		
4	Name of Parent Company ("Parent Company" means the primary name of the organization that owns the company to be permitted wholly or in part.): **Intrepid Potash, Inc.**		
a	Address of Parent Company: **1001 17th Street, Suite 1050, Denver, CO 80202**		
5	Names of Subsidiary Companies ("Subsidiary Companies" means organizations, branches, divisions or subsidiaries, which are owned, wholly or in part, by the company to be permitted.): **N/A**		
6	Telephone numbers & names of the owners' agents and site contacts familiar with plant operations: **Ken Faulkner, Environmental Manager, (575) 234-3881, (601) 259-5217**		

7	Affected Programs to include Other States, local air pollution control programs (i.e. Bernalillo) and Indian tribes: Will the property on which the facility is proposed to be constructed or operated be closer than 80 km (50 miles) from other states, local pollution control programs, and Indian tribes and pueblos (20.2.70.402.A.2 and 20.2.70.7.B)? If yes, state which ones and provide the distances in kilometers: **N/A**

Section 1-I – Submittal Requirements

Each 20.2.73 NMAC (**NOI**), a 20.2.70 NMAC (**Title V**), a 20.2.72 NMAC (**NSR** minor source), or 20.2.74 NMAC (**PSD**) application package shall consist of the following:

Hard Copy Submittal Requirements:

1) One hard copy **original signed and notarized application package** **printed double sided** **'head-to-toe'** **2-hole punched** as we bind the document on top, not on the side; except Section 2 (landscape tables), which should be head-to-head. Please use **numbered tab separators** in the hard copy submittal(s) as this facilitates the review process. For NOI submittals only, hard copies of UA1, Tables 2A, 2D & 2F, Section 3 and the signed Certification Page are required. Please include a copy of the check on a separate page.

2) If the application is for a minor NSR, PSD, NNSR, or Title V application, include one working hard **copy** for Department use. This copy should be printed in book form, 3-hole punched, and **must be double sided**. Note that this is in addition to the head-to-to 2-hole punched copy required in 1) above. Minor NSR Technical Permit revisions (20.2.72.219.B NMAC) only need to fill out Sections 1-A, 1-B, 3, and should fill out those portions of other Section(s) relevant to the technical permit revision. TV Minor Modifications need only fill out Sections 1-A, 1-B, 1-H, 3, and those portions of other Section(s) relevant to the minor modification. NMED may require additional portions of the application to be submitted, as needed.

3) The entire NOI or Permit application package, including the full modeling study, should be submitted electronically. Electronic files for applications for NOIs, any type of General Construction Permit (GCP), or technical revisions to NSRs must be submitted with compact disk (CD) or digital versatile disc (DVD). For these permit application submittals, **two** CD copies are required (in sleeves, not crystal cases, please), with additional CD copies as specified below. NOI applications require only a single CD submittal. Electronic files for other New Source Review (construction) permits/permit modifications or Title V permits/permit modifications can be submitted on CD/DVD or sent through AQB's secure file transfer service.

Electronic files sent by (check one):

√ CD/DVD attached to paper application

□ secure electronic transfer. Air Permit Contact Name_____

Email_____

Phone number _____

a. If the file transfer service is chosen by the applicant, after receipt of the application, the Bureau will email the applicant with instructions for submitting the electronic files through a secure file transfer service. Submission of the electronic files through the file transfer service needs to be completed within 3 business days after the invitation is received, so the applicant should ensure that the files are ready when sending the hard copy of the application. The applicant will not need a password to complete the transfer. **Do not use the file transfer service for NOIs, any type of GCP, or technical revisions to NSR permits.**

4) Optionally, the applicant may submit the files with the application on compact disk (CD) or digital versatile disc (DVD) following the instructions above and the instructions in 5 for applications subject to PSD review.

5) If **air dispersion modeling** is required by the application type, include the **NMED Modeling Waiver** and/or electronic air dispersion modeling report, input, and output files. The dispersion modeling ***summary report only*** should be submitted as hard copy(ies) unless otherwise indicated by the Bureau.

6) If the applicant submits the electronic files on CD and the application is subject to PSD review under 20.2.74 NMAC (PSD) or NNSR under 20.2.79 NMC include,
   a. one additional CD copy for US EPA,
   b. one additional CD copy for each federal land manager affected (NPS, USFS, FWS, USDI) and,
   c. one additional CD copy for each affected regulatory agency other than the Air Quality Bureau.

   If the application is submitted electronically through the secure file transfer service, these extra CDs do not need to be submitted.

Electronic Submittal Requirements [in addition to the required hard copy(ies)]:

1) All required electronic documents shall be submitted as 2 separate CDs or submitted through the AQB secure file transfer service. Submit a single PDF document of the entire application as submitted and the individual documents comprising the application.

2) The documents should also be submitted in Microsoft Office compatible file format (Word, Excel, etc.) allowing us to access the text and formulas in the documents (copy & paste). Any documents that cannot be submitted in a Microsoft Office compatible

format shall be saved as a PDF file from within the electronic document that created the file. If you are unable to provide Microsoft office compatible electronic files or internally generated PDF files of files (items that were not created electronically: i.e. brochures, maps, graphics, etc,), submit these items in hard copy format. We must be able to review the formulas and inputs that calculated the emissions.

3) It is preferred that this application form be submitted as 4 electronic files (3 MSWord docs: Universal Application section 1 [UA1], Universal Application section 3-19 [UA3], and Universal Application 4, the modeling report [UA4]) and 1 Excel file of the tables (Universal Application section 2 [UA2]). Please include as many of the 3-19 Sections as practical in a single MS Word electronic document. Create separate electronic file(s) if a single file becomes too large or if portions must be saved in a file format other than MS Word.

4) The electronic file names shall be a maximum of 25 characters long (including spaces, if any). The format of the electronic Universal Application shall be in the format: "A-3423-FacilityName". The "A" distinguishes the file as an application submittal, as opposed to other documents the Department itself puts into the database. Thus, all electronic application submittals should begin with "A-". Modifications to existing facilities should use the core permit number (i.e. '3423') the Department assigned to the facility as the next 4 digits. Use 'XXXX' for new facility applications. The format of any separate electronic submittals (additional submittals such as non-Word attachments, re-submittals, application updates) and Section document shall be in the format: "A-3423-9-description", where "9" stands for the section # (in this case Section 9-Public Notice). Please refrain, as much as possible, from submitting any scanned documents as this file format is extremely large, which uses up too much storage capacity in our database. Please take the time to fill out the header information throughout all submittals as this will identify any loose pages, including the Application Date (date submitted) & Revision number (0 for original, 1, 2, etc.; which will help keep track of subsequent partial update(s) to the original submittal. Do not use special symbols (#, @, etc.) in file names. The footer information should not be modified by the applicant.

Table of Contents

Table 2-A: Regulated Emission Sources

Unit and stack numbering must correspond throughout the application package. If applying for a NOI under 20.2.73 NMAC, equipment exemptions under 2.72.202 NMAC do not apply.

Unit Number[1]	Source Description	Make	Model #	Serial #	Manufact-urer's Rated Capacity[3] (Specify Units)	Requested Permitted Capacity[3] (Specify Units)	Date of Manufacture[2]	Controlled by Unit #	Source Classi-fication Code (SCC)	For Each Piece of Equipment, Check One	RICE Ignition Type (CI, SI, 4SLB, 4SRB, 2SLB)[4]	Replacing Unit No.
							Date of Construction/ Reconstruction[2]	Emissions vented to Stack #				
EP-08	HS Process Transfer Dust Collector	Donaldson Torit	DLMC 2/3/15		6000 acfm	6000 acfm				☐ Existing (unchanged) ☐ To be Removed ☒ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
EP-09	Non-road Engines	Various	Various	Various		≤1000 hp				☐ Existing (unchanged) ☐ To be Removed ☒ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
N-EP-04 / N-EP-05	Materials Handling (Operational Flexibility)	N/A	N/A	N/A	N/A	N/A				☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☒ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
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										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		
										☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced		

[1] Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.

[2] Specify dates required to determine regulatory applicability.

[3] To properly account for power conversion efficiencies, generator set rated capacity shall be reported as the rated capacity of the engine in horsepower, not the kilowatt capacity of the generator set.

[4] "4SLB" means four stroke lean burn engine, "4SRB" means four stroke rich burn engine, "2SLB" means two stroke lean burn engine, "CI" means compression ignition, and "SI" means spark ignition

Table 2-B: Insignificant Activities[1] (20.2.70 NMAC) OR Exempted Equipment (20.2.72 NMAC)

All 20.2.70 NMAC (Title V) applications must list all Insignificant Activities in this table. All 20.2.72 NMAC applications must list Exempted Equipment in this table. If equipment listed on this table is exempt under 20.2.72.202.B.5, include emissions calculations and emissions totals for 202.B.5 "similar functions" units, operations, and activities in Section 6, Calculations. Equipment and activities exempted under 20.2.72.202 NMAC may not necessarily be Insignificant under 20.2.70 NMAC (and vice versa). Unit & stack numbering must be consistent throughout the application package. Per Exemptions Policy 02-012.00 (see http://www.env.nm.gov/aqb/permit/aqb_pol.html), 20.2.72.202.B NMAC Exemptions do not apply, but 20.2.72.202.A NMAC exemptions do apply to NOI facilities under 20.2.73 NMAC. List 20.2.72.301.D.4 NMAC Auxiliary Equipment for Streamline applications in Table 2-A. The List of Insignificant Activities (for TV) can be found online at https://www.env.nm.gov/wp-content/uploads/sites/2/2017/10/InsignificantListTitleV.pdf. TV sources may elect to enter both TV Insignificant Activities and Part 72 Exemptions on this form.

Unit Number	Source Description	Manufacturer	Model No.	Max Capacity	List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)	Date of Manufacture /Reconstruction[2]	For Each Piece of Equipment, Check Onc
			Serial No.	Capacity Units	Insignificant Activity citation (e.g. IA List Item #1.a)	Date of Installation /Construction[2]	
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced
							☐ Existing (unchanged) ☐ To be Removed ☐ New/Additional ☐ Replacement Unit ☐ To Be Modified ☐ To be Replaced

[1] Insignificant activities exempted due to size or production rate are defined in 20.2.70.300.D.6, 20.2.70.7.Q NMAC, and the NMED/AQB List of Insignificant Activities, dated September 15, 2008. Emissions from these insignificant activities do not need to be reported, unless specifically requested.

[2] Specify date(s) required to determine regulatory applicability.

Table 2-C: Emissions Control Equipment

Unit and stack numbering must correspond throughout the application package. Only list control equipment for TAPs if the TAP's maximum uncontrolled emissions rate is over its respective threshold as listed in 20.2.72 NMAC, Subpart V, Tables A and B. In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device regardless if the applicant takes credit for the reduction in emissions.

Control Equipment Unit No.	Control Equipment Description	Date Installed	Controlled Pollutant(s)	Controlling Emissions for Unit Number(s)[1]	Efficiency (% Control by Weight)	Method used to Estimate Efficiency
N-EP-08	Donaldson Torrit Dust Collector	2022	PM	EP-08 including various pickup points in the HS transfer process	99.5%	AP-42 App B.2

[1] List each control device on a separate line. For each control device, list all emission units controlled by the control device.

Table 2-D: Maximum Emissions (under normal operating conditions)

☐ **This Table was intentionally left blank because it would be identical to Table 2-E.**

Maximum Emissions are the emissions at maximum capacity and prior to (in the absence of) pollution control, emission-reducing process equipment, or any other emission reduction. Calculate the hourly emissions using the worst case hourly emissions for each pollutant. For each pollutant, calculate the annual emissions as if the facility were operating at maximum plant capacity without pollution controls for 8760 hours per year, unless otherwise approved by the Department. List Hazardous Air Pollutants (HAP) & Toxic Air Pollutants (TAPs) in Table 2-I. Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E-4).

Unit No.	NOx		CO		VOC		SOx		PM[1]		PM10[1]		PM2.5[1]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
N-EP-08	-	-	-	-	-	-	-	-	4.53	19.85	1.71	7.50	0.12	0.53	-	-	-	-
N-EP-09	12.33	54.03	13.16	57.63	2.51	11.01	2.05	8.98	1.32	5.76	1.32	5.76	1.32	5.76	-	-	-	-
N-EP-04/05	-	-	-	-	-	-	-	-	0.75	6.13	0.42	3.31	0.09	0.52	-	-	-	-
Totals	12.33	54.03	13.16	57.63	2.51	11.01	2.05	8.98	6.60	31.75	3.44	16.58	1.53	6.81	-	-	-	-

[1]**Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but PM is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-E: Requested Allowable Emissions

Unit & stack numbering must be consistent throughout the application package. Fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or $1.41E^{-4}$).

Unit No.	NOx		CO		VOC		SOx		PM[1]		PM10[1]		PM2.5[1]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
N-EP-08	-	-	-	-	-	-	-	-	2.06	9.01	2.06	9.01	2.06	9.01	-	-	-	-
N-EP-09	12.33	54.03	13.16	57.63	2.51	11.01	2.05	8.98	1.32	5.76	1.32	5.76	1.32	5.76	-	-	-	-
N-EP-04/05	-	-	-	-	-	-	-	-	0.75	6.13	0.42	3.31	0.09	0.52	-	-	-	-
Totals	12.33	54.03	13.16	57.63	2.51	11.01	2.05	8.98	4.12	20.91	3.79	18.09	3.46	15.29	-	-	-	-

[1] **Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC

Table 2-F: Additional Emissions during Startup, Shutdown, and Routine Maintenance (SSM)

☐ This table is intentionally left blank since all emissions at this facility due to routine or predictable startup, shutdown, or scehduled maintenance are no higher than those listed in Table 2-E and a malfunction emission limit is not already permitted or requested. If you are required to report GHG emissions as described in Section 6a, include any GHG emissions during Startup, Shutdown, and/or Scheduled Maintenance (SSM) in Table 2-P. Provide an explanations of SSM emissions in Section 6 and 6a.

All applications for facilities that have emissions during routine our predictable startup, shutdown or scheduled maintenance (SSM)[1], including NOI applications, must include in this table the Maximum Emissions during routine or predictable startup, shutdown and scheduled maintenance (20.2.7 NMAC, 20.2.72.203.A.3 NMAC, 20.2.73.200.D.2 NMAC). In Section 6 and 6a, provide emissions calculations for all SSM emissions reported in this table. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (https://www.env.nm.gov/aqb/permit/aqb_pol.html) for more detailed instructions. Numbers shall be expressed to at least 2 decimal points (e.g. 0.41, 1.41, or 1.41E-4).

Unit No.	NOx		CO		VOC		SOx		PM[2]		PM10[2]		PM2.5[2]		H_2S		Lead	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Totals																		

[1] **For instance**, if the short term steady-state Table 2-E emissions are 5 lb/hr and the SSM rate is 12 lb/hr, enter 7 lb/hr in this table. If the annual steady-state Table 2-E emissions are 21.9 TPY, and the number of scheduled SSM events result in annual emissions of 31.9 TPY, enter 10.0 TPY in the table below.

[2] **Condensable Particulate Matter:** Include condensable particulate matter emissions for PM10 and PM2.5 if the source is a combustion source. Do not include condensable particulate matter for PM unless PM is set equal to PM10 and PM2.5. Particulate matter (PM) is not subject to an ambient air quality standard, but it is a regulated air pollutant under PSD (20.2.74 NMAC) and Title V (20.2.70 NMAC).

Table 2-G: Stack Exit and Fugitive Emission Rates for Special Stacks

☐ I have elected to leave this table blank because this facility does not have any stacks/vents that split emissions from a single source or combine emissions from more than one source listed in table 2-A. Additionally, the emission rates of all stacks match the Requested allowable emission rates stated in Table 2-E.

Use this table to list stack emissions (requested allowable) from split and combined stacks. List Toxic Air Pollutants (TAPs) and Hazardous Air Pollutants (HAPs) in Table 2-I. List all fugitives that are associated with the normal, routine, and non-emergency operation of the facility. Unit and stack numbering must correspond throughout the application package. Refer to Table 2-E for instructions on use of the "-" symbol and on significant figures.

Stack No.	Serving Unit Number(s) from Table 2-A	NOx		CO		VOC		SOx		PM		PM10		PM2.5		☐ H_2S or ☐ Lead	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Totals:																	

Table 2-H: Stack Exit Conditions

Unit and stack numbering must correspond throughout the application package. Include the stack exit conditions for each unit that emits from a stack, including blowdown venting parameters and tank emissions. If the facility has multiple operating scenarios, complete a separate Table 2-H for each scenario and, for each, type scenario name here:

Stack Number	Serving Unit Number(s) from Table 2-A	Orientation (H-Horizontal V=Vertical)	Rain Caps (Yes or No)	Height Above Ground (ft)	Temp. (F)	Flow Rate		Moisture by Volume (%)	Velocity (ft/sec)	Inside Diameter (ft)
						(acfs)	(dscfs)			
N-EP-08	N-EP-08	V	N	83	Ambient	6000	~6000		56.588	1.50
N-EP-09	Power Rating ↓									
	kW < 19	H	N	3	900	160.4	63.7		276	0.11
	19 ≤ kW < 37	V	N	2	900	312.3	124.0		276	0.15
	37 ≤ kW < 56	V	N	3	900	472.6	187.7		276	0.19
	56 ≤ kW < 75	V	N	4	900	633.0	251.3		276	0.22
	75 ≤ kW < 130	V	N	4	900	1,097.2	435.7		276	0.29
	130 ≤ kW < 225	V	N	6	900	1,259.3	500.0		276	0.31
	225 ≤ kW< 450	V	N	11	900	3,376.0	1,340.5		276	0.51
	450 ≤ kW < 560	V	N	14	900	4,726.4	1,876.7		276	0.60
	560 ≤ kW < 746	V	N	16	900	6,296.3	2,500.0		276	0.70

Table 2-I: Stack Exit and Fugitive Emission Rates for HAPs and TAPs

In the table below, report the Potential to Emit for each HAP from each regulated emission unit listed in Table 2-A, only if the entire facility emits the HAP at a rate greater than or equal to one (1) ton per year For each such emission unit, HAPs shall be reported to the nearest 0.1 tpy. Each facility-wide Individual HAP total and the facility-wide Total HAPs shall be the sum of all HAP sources calculated to the nearest 0.1 ton per year. Per 20.2.72.403.A.1 NMAC, facilities not exempt [see 20.2.72.402.C NMAC] from TAP permitting shall report each TAP that has an uncontrolled emission rate in excess of its pounds per hour screening level specified in 20.2.72.502 NMAC. TAPs shall be reported using one more significant figure than the number of significant figures shown in the pound per hour threshold corresponding to the substance. Use the HAP nomenclature as it appears in Section 112 (b) of the 1990 CAAA and the TAP nomenclature as it listed in 20.2.72.502 NMAC. Include tank-flashing emissions estimates of HAPs in this table. For each HAP or TAP listed, fill all cells in this table with the emission numbers or a "-" symbol. A "-" symbol indicates that emissions of this pollutant are not expected or the pollutant is emitted in a quantity less than the threshold amounts described above.

Stack No.	Unit No.(s)	Total HAPs		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP		Provide Pollutant Name Here □ HAP or □ TAP	
		lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Totals:																			

Table 2-J: Fuel

Specify fuel characteristics and usage. Unit and stack numbering must correspond throughout the application package.

Unit No.	Fuel Type (low sulfur Diesel, ultra low sulfur diesel, Natural Gas, Coal, …)	Fuel Source: purchased commercial, pipeline quality natural gas, residue gas, raw/field natural gas, process gas (e.g. SRU tail gas) or other	Specify Units				
			Lower Heating Value	Hourly Usage	Annual Usage	% Sulfur	% Ash
N-EP-09	Diesel	Purchased commercial	140 MMBTU/1,000 Gallons	61.40	537,894.74	N/A	N/A
	*	Fuel used based on an average brake-specific fuel consumption (BSFC) of 7,000 Btu/hp-hr	Annual use based on 8760 hours /yr				

Table 2-K: Liquid Data for Tanks Listed in Table 2-L

For each tank, list the liquid(s) to be stored in each tank. If it is expected that a tank may store a variety of hydrocarbon liquids, enter "mixed hydrocarbons" in the Composition column for that tank and enter the corresponding data of the most volatile liquid to be stored in the tank. If tank is to be used for storage of different materials, list all the materials in the "All Calculations" attachment, run the newest version of TANKS on each, and use the material with the highest emission rate to determine maximum uncontrolled and requested allowable emissions rate. The permit will specify the most volatile category of liquids that may be stored in each tank. Include appropriate tank-flashing modeling input data. Use additional sheets if necessary. Unit and stack numbering must correspond throughout the application package.

Tank No.	SCC Code	Material Name	Composition	Liquid Density (lb/gal)	Vapor Molecular Weight (lb/lb*mol)	Average Storage Conditions		Max Storage Conditions	
						Temperature (°F)	True Vapor Pressure (psia)	Temperature (°F)	True Vapor Pressure (psia)

Table 2-L: Tank Data

Include appropriate tank-flashing modeling input data. Use an addendum to this table for unlisted data categories. Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.
See reference Table 2-L2. Note: 1.00 bbl = 10.159 M3 = 42.0 gal

Tank No.	Date Installed	Materials Stored	Seal Type (refer to Table 2-LR below)	Roof Type (refer to Table 2-LR below)	Capacity		Diameter (M)	Vapor Space (M)	Color (from Table VI-C)		Paint Condition (from Table VI-C)	Annual Throughput (gal/yr)	Turn-overs (per year)
					(bbl)	(M^3)			Roof	Shell			

Table 2-L2: Liquid Storage Tank Data Codes Reference Table

Roof Type	Seal Type, Welded Tank Seal Type		Seal Type, Riveted Tank Seal Type		Roof, Shell Color	Paint Condition
FX: Fixed Roof	**Mechanical Shoe Seal**	**Liquid-mounted resilient seal**	**Vapor-mounted resilient seal**	**Seal Type**	**WH**: White	Good
IF: Internal Floating Roof	**A**: Primary only	**A**: Primary only	**A**: Primary only	**A**: Mechanical shoe, primary only	**AS**: Aluminum (specular)	Poor
EF: External Floating Roof	**B**: Shoe-mounted secondary	**B**: Weather shield	**B**: Weather shield	**B**: Shoe-mounted secondary	**AD**: Aluminum (diffuse)	
P: Pressure	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**C**: Rim-mounted secondary	**LG**: Light Gray	
					MG: Medium Gray	
					BL: Black	
					OT: Other (specify)	

Note: 1.00 bbl = 0.159 M^3 = 42.0 gal

Table 2-M: Materials Processed and Produced (Use additional sheets as necessary.)

Material Processed				Material Produced			
Description	**Chemical Composition**	**Phase (Gas, Liquid, or Solid)**	**Quantity (specify units)**	**Description**	**Chemical Composition**	**Phase**	**Quantity (specify units)**

Table 2-N: CEM Equipment

Enter Continuous Emissions Measurement (CEM) Data in this table. If CEM data will be used as part of a federally enforceable permit condition, or used to satisfy the requirements of a state or federal regulation, include a copy of the CEM's manufacturer specification sheet in the Information Used to Determine Emissions attachment. Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.

Stack No.	Pollutant(s)	Manufacturer	Model No.	Serial No.	Sample Frequency	Averaging Time	Range	Sensitivity	Accuracy

Table 2-O: Parametric Emissions Measurement Equipment

Unit and stack numbering must correspond throughout the application package. Use additional sheets if necessary.

Unit No.	Parameter/Pollutant Measured	Location of Measurement	Unit of Measure	Acceptable Range	Frequency of Maintenance	Nature of Maintenance	Method of Recording	Averaging Time

Table 2-P: Greenhouse Gas Emissions

Applications submitted under 20.2.70, 20.2.72, & 20.2.74 NMAC are required to complete this Table. Power plants, Title V major sources, and PSD major sources must report and calculate all GHG emissions for each unit. Applicants must report potential emission rates in short tons per year (see Section 6.a for assistance). Include GHG emissions during Startup, Shutdown, and Scheduled Maintenance in this table. For minor source facilities that are not power plants, are not Title V, or are not PSD, there are three options for reporting GHGs 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHG as a second separate unit; OR 3) check the following box ☐ By checking this box, the applicant acknowledges the total CO2e emissions are less than 75,000 tons per year.

		CO_2 ton/yr	N_2O ton/yr	CH_4 ton/yr	SF_6 ton/yr	PFC/HFC ton/yr[2]									Total GHG Mass Basis ton/yr[4]	Total CO_2e ton/yr[5]
Unit No.	**GWPs [1]**	**1**	**298**	**25**	**22,800**	**footnote 3**										
N-EP-09	**mass GHG**	5,037													5,037	
	CO_2e	5,037														5,037
	mass GHG															
	CO_2e															
	mass GHG															
	CO_2e															
	mass GHG															
	CO_2e															
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	CO_2e															
	mass GHG															
	CO_2e															
	mass GHG															
	CO_2e															
	mass GHG															
	CO2e															
Total	**mass GHG**														5,037	
	CO_2e															5,037

[1] **GWP** (Global Warming Potential): Applicants must use the most current GWPs codified in Table A-1 of 40 CFR part 98. GWPs are subject to change, therefore, applicants need to check 40 CFR 98 to confirm GWP values.

[2] For **HFCs** or **PFCs** describe the specific HFC or PFC compound and use a separate column for each individual compound.

[3] For each new compound, enter the appropriate GWP for each HFC or PFC compound from Table A-1 in 40 CFR 98.

[4] Green house gas emissions on a **mass basis** is the ton per year green house gas emission before adjustment with its GWP.

[5] **CO_2e** means Carbon Dioxide Equivalent and is calculated by multiplying the TPY mass emissions of the green house gas by its GWP.

N-EP-04 and N-EP-05 - Addition of HS Reject Loadout.

Description	Throughputs		Activities	Emission Factor (lb/ton) (a)			Controls	Hourly Emissions (lb/hr)			Annual Emissions (TPY)		
	Hourly	Annual		TSP	PM10	PM2.5		TSP	PM10	PM2.5	TSP	PM10	PM2.5
N-EP-04 and N-EP-05 "Materials Handling (Operational Flexibility - Combined Activity Unit)													
Loadout	300	2,628,000	Loading	0.0001	0.0001	0.00010		0.030	0.030	0.030	0.131	0.131	0.131
HS Reject Loadout	125	3,750	Reject Loading	0.0001	0.0001	0.00010		0.013	0.013	0.013	0.000	0.000	0.000
Dribble Bin	10	87,600	Drop Operation	0.0039	0.0019	0.00028		0.039	0.019	0.003	0.173	0.082	0.012
Operational Flexibility	25	438,000	Drop Operation	0.0039	0.0019	0.00028		0.098	0.047	0.007	0.863	0.408	0.062
Activities			Screening	0.017	0.0087	0.00059		0.418	0.218	0.015	3.661	1.905	0.129
			Conveyor Transfer Point	0.0021	0.0011	0.00031		0.051	0.028	0.008	0.450	0.241	0.068
			Tertiary Crushing	0.0038	0.0024	0.00044		0.095	0.060	0.011	0.834	0.526	0.096
			Loading	0.0001	0.0001	0.00010		0.003	0.003	0.003	0.022	0.022	0.022
							Total Emissions:	0.75	0.42	0.088	6.13	3.31	0.52

Notes:

(a) Emission factors for described activities were adapted from AP42, Fifth Edition Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, from TV Application .

N-EP-08 HS Process Transfer

Uncontrolled Emissions:

Descripton	Activity	Rate	Uncontrolled Emission Factor				Hourly Emissions			Annual Emissions at Continuous Operation		
			TSP	PM_{10}	$PM_{2.5}$[(a)]	EF	TSP	PM_{10}	$PM_{2.5}$	TSP	PM_{10}	$PM_{2.5}$
		tons/hr	(lb/ton)	(lb/ton)	(lb/ton)	Reference	(lb/hr)	(lb/hr)	(lb/hr)	(tpy)	(tpy)	(tpy)
Pneumatic Diverter Gate GA-01	Drop	125	3.94E-03	1.86E-03	2.82E-04	AP-42 13.2.4 Eq. (1)[(b)]	0.49	0.23	0.04	2.16	1.02	0.15
Vibrating Screen NNC23	Screening	125	2.50E-02	8.70E-03	5.95E-05	AP-42 Table 11.19.2-2[(a)]	3.13	1.09	0.01	13.69	4.76	0.03
Product <10 Mesh to CV 300-01	Drop	125	3.94E-03	1.86E-03	2.82E-04	AP-42 13.2.4 Eq. (1)[(b)]	0.49	0.23	0.04	2.16	1.02	0.15
Rejects >10 Mesh to Storage Bin NNC10094	Drop	6	3.94E-03	1.86E-03	2.82E-04	AP-42 13.2.4 Eq. (1)[(b)]	0.02	0.01	0.00	0.10	0.05	0.01
Storage Bin Drop to Truck	Drop	6	3.94E-03	1.86E-03	2.82E-04	AP-42 13.2.4 Eq. (1)[(b)]	0.02	0.01	0.00	0.10	0.05	0.01
CV 300-01 to CV 300-02	Conveyor Transfer	125	3.00E-03	1.10E-03	3.17E-04	AP-42 Table 11.19.2-2[(a)]	0.38	0.14	0.04	1.64	0.60	0.17
Total Uncontrolled Emissions							**4.53**	**1.71**	**0.12**	**19.85**	**7.50**	**0.53**

Notes:

(a) No $PM_{2.5}$ emission factor reported by AP42, Table 11.19.2-2, $PM_{2.5}$ calculated based on control factor from PM_{10}.

Uncontrolled emission factor = Controlled total particulate emission factor/[(100% – PM_{10} Efficiency %)/100%]

Screening Controlled $PM_{2.5}$ = 0.000005 lb/ton; PM_{10} Efficiency = 91.6%

Conveyor Transfer Controlled PM2.5 = 1.3E-5 lb/ton; PM_{10} Control Efficiency = 95.9%

(b) Average wind speed of 9 mph and moisture content of 2.4% used in the drop equiation with the particle size multipliers listed below

$$E = k(0.0032)\ \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}}\ \text{(pound [lb]/ton)}$$

Aerodynamic Particle Size Multiplier (k) For Equation 1		
< 30 µm	< 10 µm	< 2.5 µm
0.74	0.35	0.05

Controlled Emissions:

Controlled emissions based on the control efficiency of 99.5% listed in AP-42 Table B.2-3 for Fabric filter - low temperature.

Controlled emissions = Uncontrolled emissions x (100% - control efficiency %)/100%

Emission Point	Hourly Emissions			Annual Emissions at Continuous Operation		
	TSP	PM_{10}	$PM_{2.5}$	TSP	PM_{10}	$PM_{2.5}$
	(lb/hr)	(lb/hr)	(lb/hr)	(tpy)	(tpy)	(tpy)
N-EP-08	0.02	0.01	0.00	0.10	0.04	0.00

Requested Allowable Emission:

Requested allowable emissions are based on:
- the NMAC 20.2.19.109(A)(2) requirement of 0.04 grains per dry cubic foot of discharge gas adjusted to standard conditions.
- design volumetric flow rate of 6000 acfm
- dust collector exhaust at ambient temperature & pressure with negligible moisture
- $PM=PM_{10}=PM_{2.5}$

$PM/PM_{10}/PM_{2.5}$ emissions = (0.04 gr/dscf)(6000 acfm)(1 dscf/acf)(60 min/hr)(lb/7000 gr)
= 2.06 lb/hr
= 9.01 TPY

N-EP-09 - Portable Non-road Engines

Model	Various
Capacity (HP):	1000
Capacity (KW):	746
Fuel:	Diesel
Emission Point:	N-EP-09

AP-42 Table 3.3-1. Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines				**EPA-420-B-16-022**			**Total**	
	Diesel Fuel			Diesel Fuel				
Pollutant	Emission Factor (lb/hp-hr) (power output)	Emission Factor (lb/MMBtu) (fuel input)	EMISSION FACTOR RATING	Max Tier 2* Engine (g/kw-hr)	lb/hr	TPY	**lb/hr**	**TPY**
NOx	0.031	4.41	D	7.5	12.33	54.03	**12.33**	**54.03**
CO	0.007	0.95	D	8	13.16	57.63	**13.16**	**57.63**
SOx	0.002	0.29	D		2.05	8.98	**2.05**	**8.98**
PM10	0.002	0.31	D	0.8	1.32	5.76	**1.32**	**5.76**
CO_2	1.150	164	B		1150.00	5037.00	**1,150.00**	**5,037.00**
Aldehydes	0.000	0.07	D		0.46	2.03	**0.46**	**2.03**
TOC					2.51	11.01	**2.51**	**11.01**
Exhaust	0.002	0.35	D		2.47	10.82	**2.47**	**10.82**
Evaporative	0.000	0.00	E		0.00	0.00	-	-
Crankcase	0.000	0.01	E		0.04	0.19	**0.04**	**0.19**
Refueling	0.000	0.00	E		0.00	0.00	-	-

*Emissions are based on the highest certified ratings, i.e. kW<8, and assumed 1000 hp

No HAPs are present above 0.1 tpy based on AP-42 Table 3.3-2

Emissions based on AP-42 factor for diesel

Emissions based on maximum Tier 2 emission rates.

Stack Parameters

Engine Tier	Engine Type	Engine Temperature	Intake Flow	Exhaust Flow	Dia (ft)	HP	Height (ft)
kW < 19	Diesel 4-Cycle Turbo	900	64	160	0.11	25.47	3.2h
19 ≤ kW < 37	Diesel 4-Cycle Turbo	900	124	312	0.15	49.60	2
37 ≤ kW < 56	Diesel 4-Cycle Turbo	900	188	473	0.19	75.07	3
56 ≤ kW < 75	Diesel 4-Cycle Turbo	900	251	633	0.22	100.54	4
75 ≤ kW < 130	Diesel 4-Cycle Turbo	900	436	1,097	0.29	174.26	4
130 ≤ kW < 225	Diesel 4-Cycle Turbo	900	500	1,259	0.31	200.00	6
225 ≤ kW< 450	Diesel 4-Cycle Turbo	900	1,340	3,376	0.51	536.19	11
450 ≤ kW < 560	Diesel 4-Cycle Turbo	900	1,877	4,726	0.60	750.67	14
560 ≤ kW < 900	Diesel 4-Cycle Turbo	900	2,500	6,296	0.70	1000.00	16

Notes: Stack parameters estimated from Donaldson "Engine Horsepower & Exhaust Flow Guide"

Air intake estimated by (2.5 cfm/hp) x (HP capacity)

Exhaust Flow = (Exhaust Temp ^{o}F + 460)/540

Exhaust Diameter calculated based on 115 cfm/in^2 for horizontal discharges

kW = HP x 0.746

Stack height based on model iterations

Section 3

Application Summary

The **Application Summary** shall include a brief description of the facility and its process, the type of permit application, the applicable regulation (i.e. 20.2.72.200.A.X, or 20.2.73 NMAC) under which the application is being submitted, and any air quality permit numbers associated with this site. If this facility is to be collocated with another facility, provide details of the other facility including permit number(s). In case of a revision or modification to a facility, provide the lowest level regulatory citation (i.e. 20.2.72.219.B.1.d NMAC) under which the revision or modification is being requested. Also describe the proposed changes from the original permit, how the proposed modification will affect the facility's operations and emissions, de-bottlenecking impacts, and changes to the facility's major/minor status (both PSD & Title V).

The **Process Summary** shall include a brief description of the facility and its processes.

Startup, Shutdown, and Maintenance (SSM) routine or predictable emissions: Provide an overview of how SSM emissions are accounted for in this application. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions.

Intrepid Potash New Mexico, LLC ("Intrepid") is submitting this application per 20.2.72.200.A.(2) to include portable non-road engines in the facility permit, add a white standard potash system consisting of a bucket elevator, screens, conveyor transfer and reject material truck loading, and to widen the public road buffer zone.

Potash is transported to North Plant for compaction, sizing, and sales to third party customers by truck or rail. Currently, white standard potash product (HS) product is stored in North Domes 1 and 2. Current loading practice of this product into rail cars and trucks requires transporting HS product from Domes 1 and 2 by wheel loader to an outdoor portable screening unit located near CV300-01 (to ensure product sent to the SFSF Loadout meets required size specifications). The screened product is transported from the screen by portable conveyor onto conveyor CV300-01 which feeds the SFSF loadout 100-ton and 300-ton product loading bins.

IPNM is proposing to eliminate the wheel loader and the portable screening/conveying system by locating HS product in Domes 1 and 2 and installing a new, permanent, mechanical system within a new structure that discharges onto existing CV300-01 conveyor. The new structure is to be located between Dome 1 and the existing CV300-01 conveyor and is to be fully enclosed to protect product from the weather. A dust collection system will be installed for the transfer points.

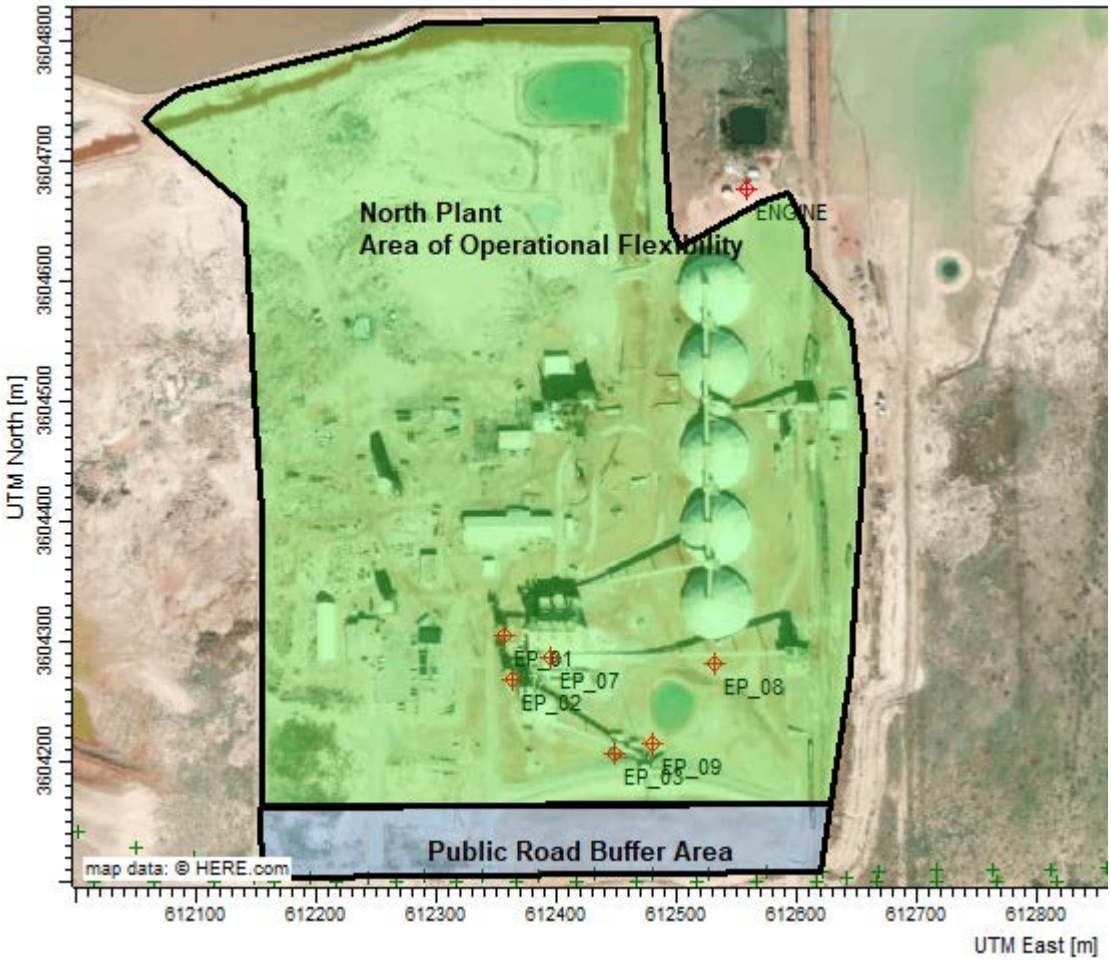
Approximately 70,000 tons of HS product are loaded out each year. This new mechanical system is to normally operate at 100 tons per hour (tph). Design throughput is to be for 125 tph.

Currently, a single conveyor belt, 20 conveyor, services, and transports material from Domes 1, 2, and 3, to the north, for loadout through the existing EG system. This project will split the 20 conveyors between Domes 2 and 3. The existing 20 conveyor drive is located at the north end of Dome 3 and will be used for the shortened 20 conveyor. The conveyor under Domes 1 and 2 will be called the 20S conveyor. The new drive for the 20S conveyor will be located at the south end of the conveyor.

There is tunnel access for the existing 20 conveyor located at the south end of Dome 1. IPNM proposes to extend the 20S conveyor into this access area where it would discharge into a new bucket elevator that would feed the equipment in the new structure. The new bucket elevator will feed material through a diverter valve onto vibratory screens or into a chute bypassing the screens. All products will be screened. However, bypass of the screens to the rejects bin may occur to clear the system of residual material. Screen oversize material will report into a 50-ton rejects bin that would be emptied as needed via dump truck. Screen undersize material will report onto the CV300-01 conveyor.

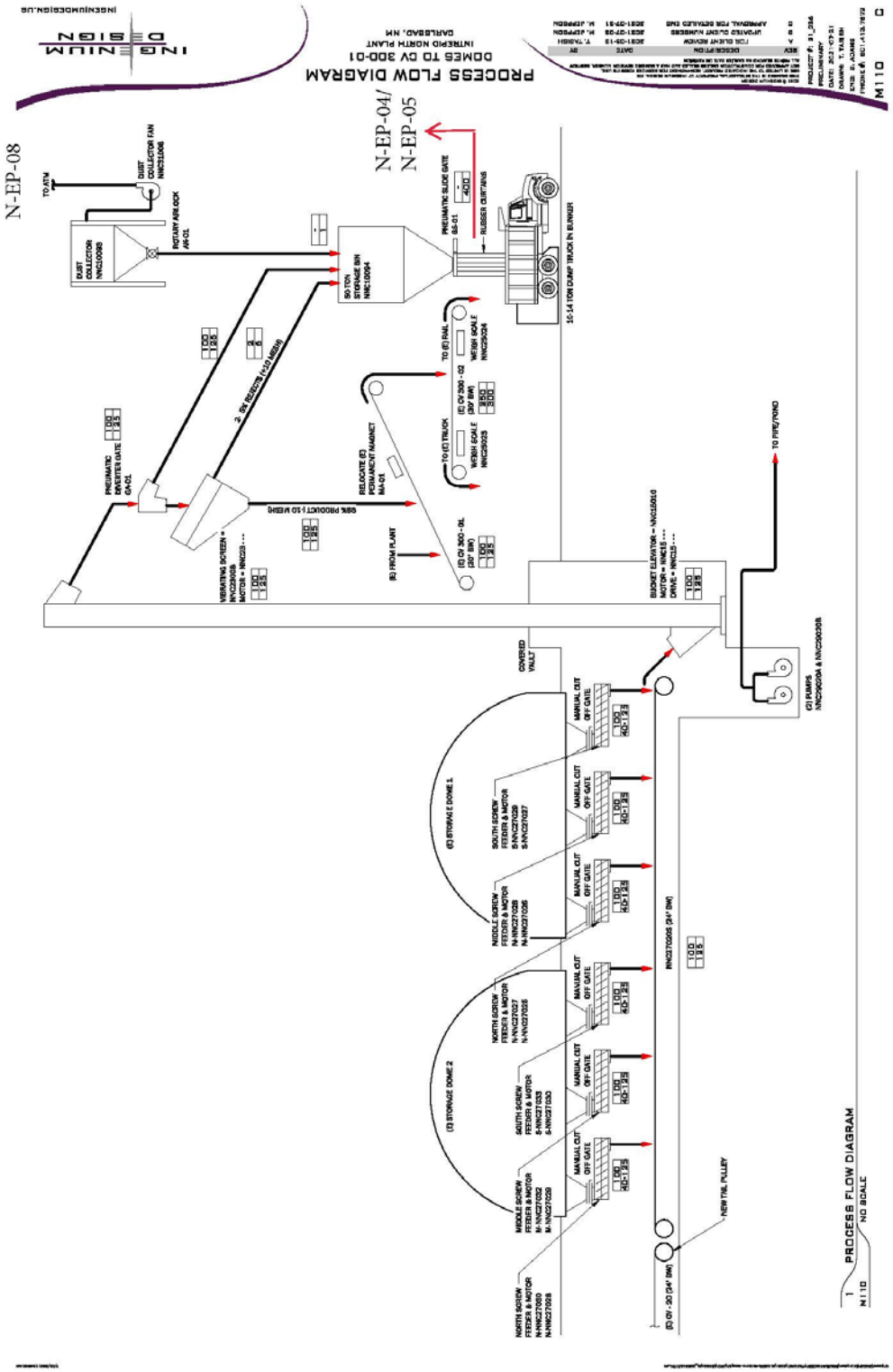
In addition to the HS product project, Intrepid is proposing to incorporate the use of non-road diesel engines at the North Compaction Plant up to a combined total of 1000 HP of Tier 2 or greater engines. On occasion nonroad engines are necessary to meet various project needs around the facility. Intrepid is requesting the flexibility to locate nonroad engines no closer than

110 meters to the restricted facility boundary. The widening of the public road buffer is proposed and any intraplant activities included in the operational flexibility of N-EP-04/N-EP-05 will take place north of the truck dump ramp/road.



Section 4

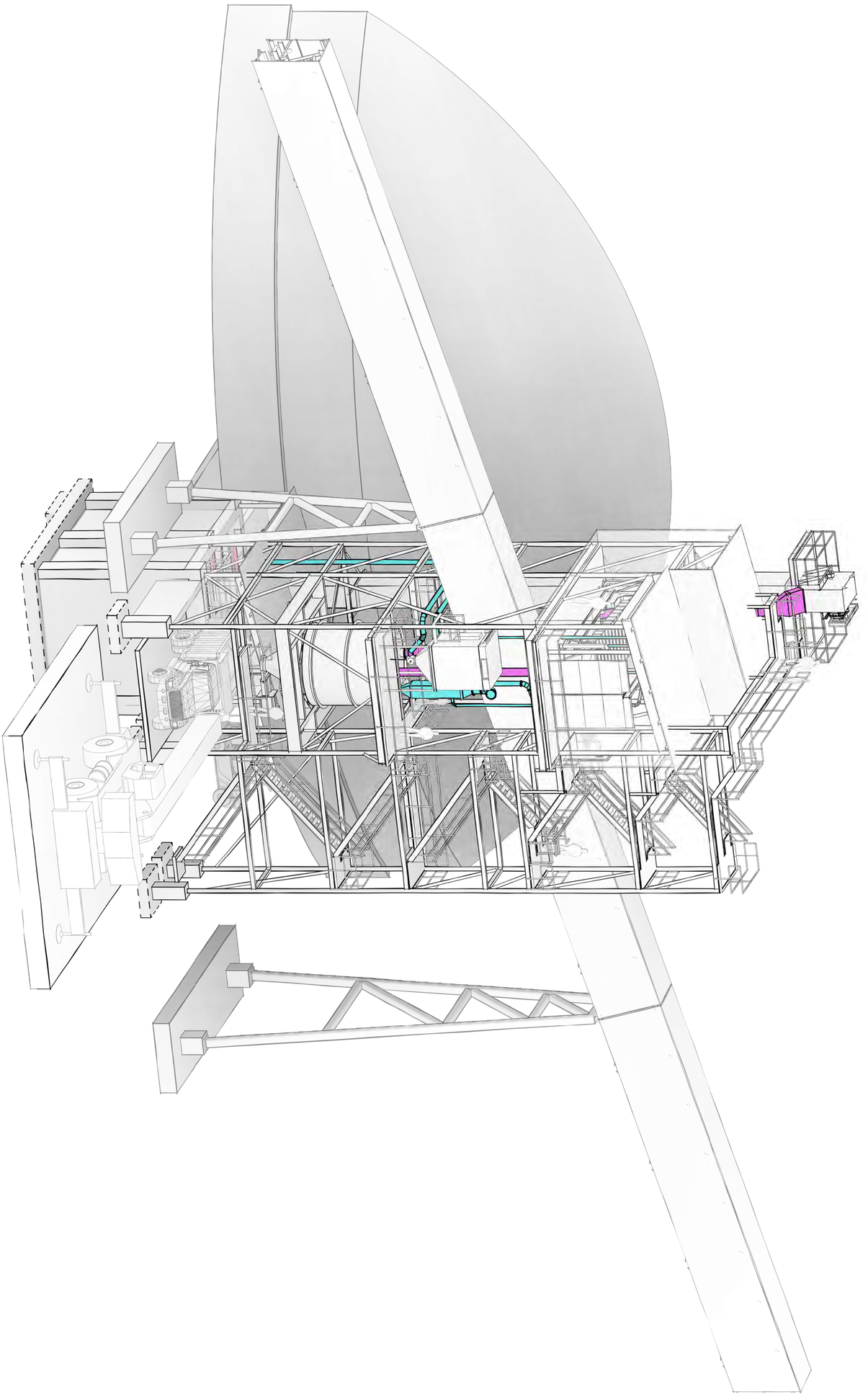
Process Flow Sheet



Section 5

Plot Plan Drawn To Scale

A **plot plan drawn to scale** showing emissions points, roads, structures, tanks, and fences of property owned, leased, or under direct control of the applicant. This plot plan must clearly designate the restricted area as defined in UA1, Section 1-D.12. The unit numbering system should be consistent throughout this application.



REV	DESCRIPTION	DATE	BY
A	FOR CLIENT REVIEW AND COMMENTS	2021-07-01	M. JEPPSON
B	APPROVAL FOR DETAILED ENG	2021-07-21	M. JEPPSON

OVERALL ISOMETRIC VIEW

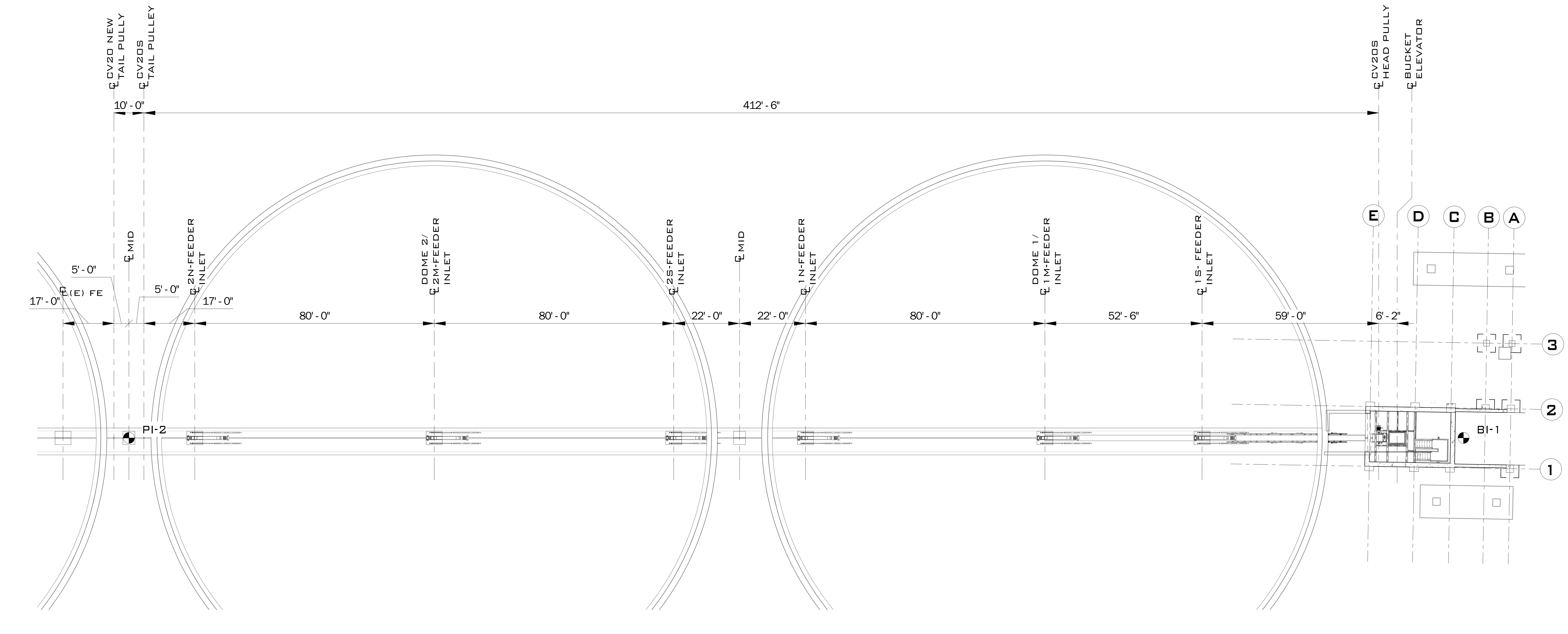
DOMES TO CV 300-01
INTREPID NORTH PLANT
CARLSBAD, NM

PROJECT #: 21_026
PRELIMINARY
DATE: 2021-07-21
DRAWN: M. JEPPSON
ENG: S. ADAMS
PHONE #: 801.413.7672

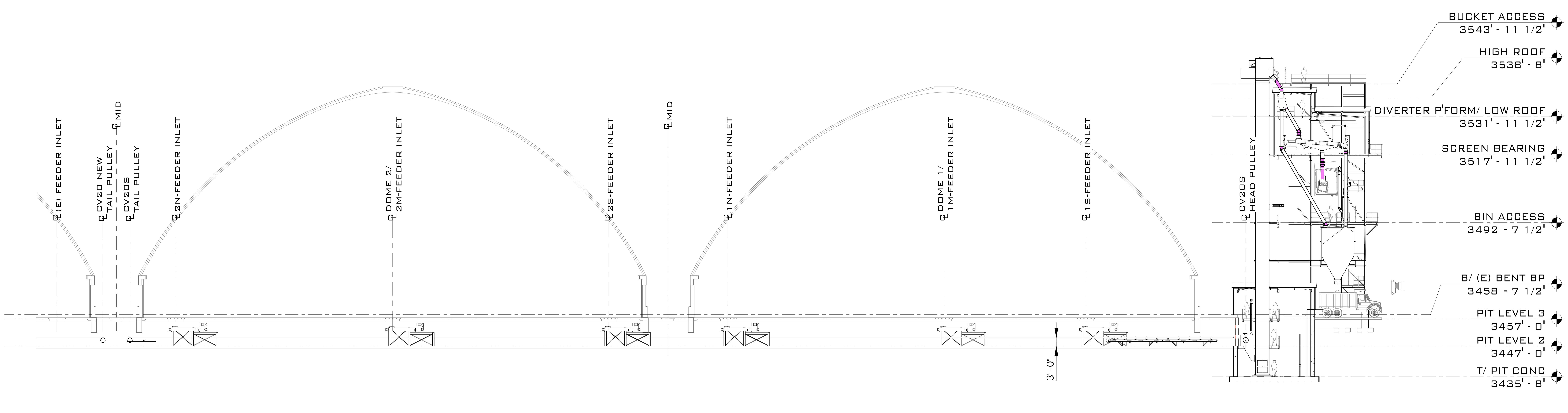
G010

B

INGENIUM DESIGN
INGENIUMDESIGN.US



1 NCC27020S PLAN
G210 1" = 20'-0"



2 NCC27020S PROFILE
G210 1" = 20'-0"

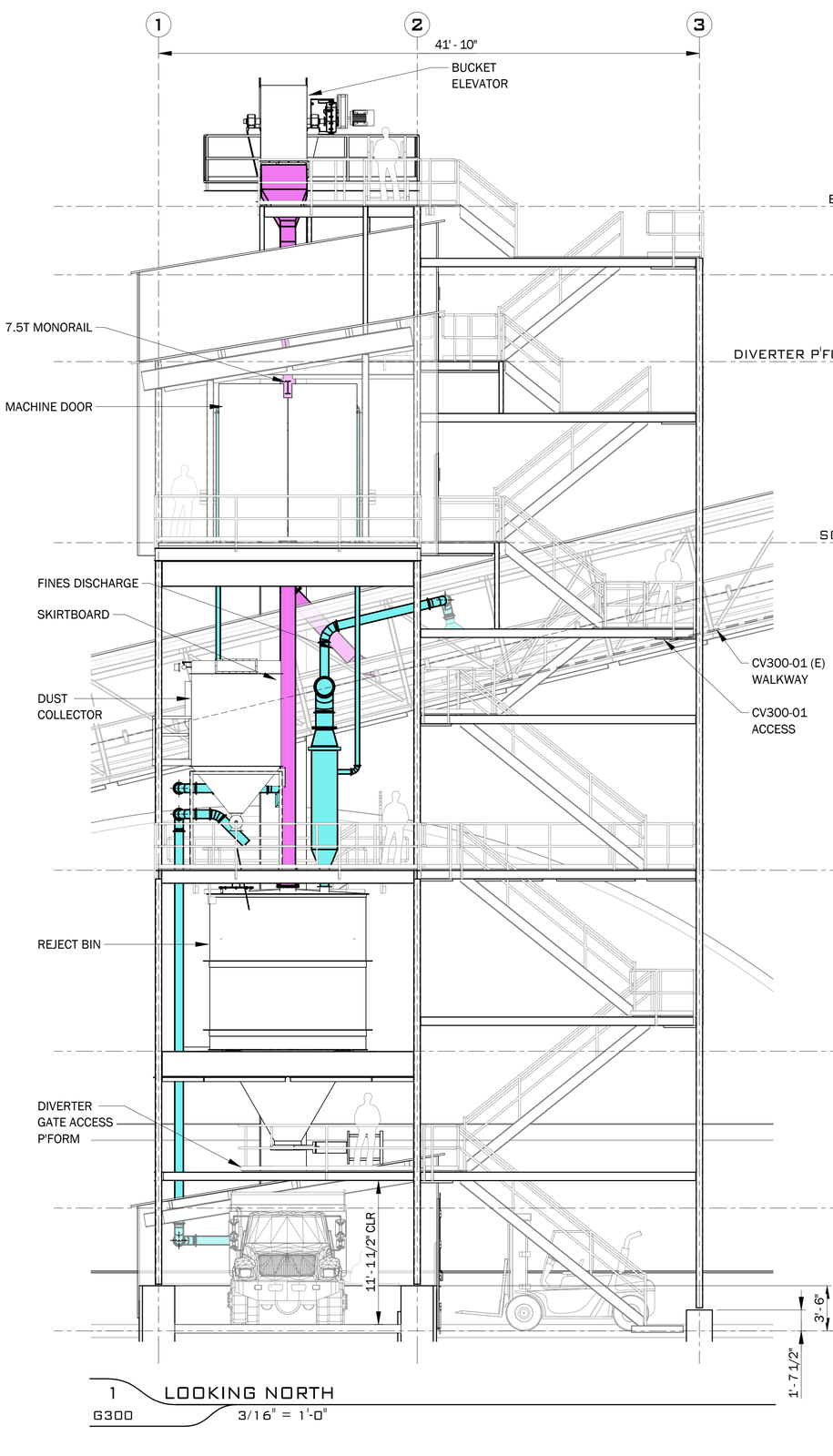
INGENIUM DESIGN
INGENIUMDESIGN.US

NNC27020S PLAN AND PROFILE
DOMES TO CV 300-01
INTREPID NORTH PLANT
CARLSBAD, NM

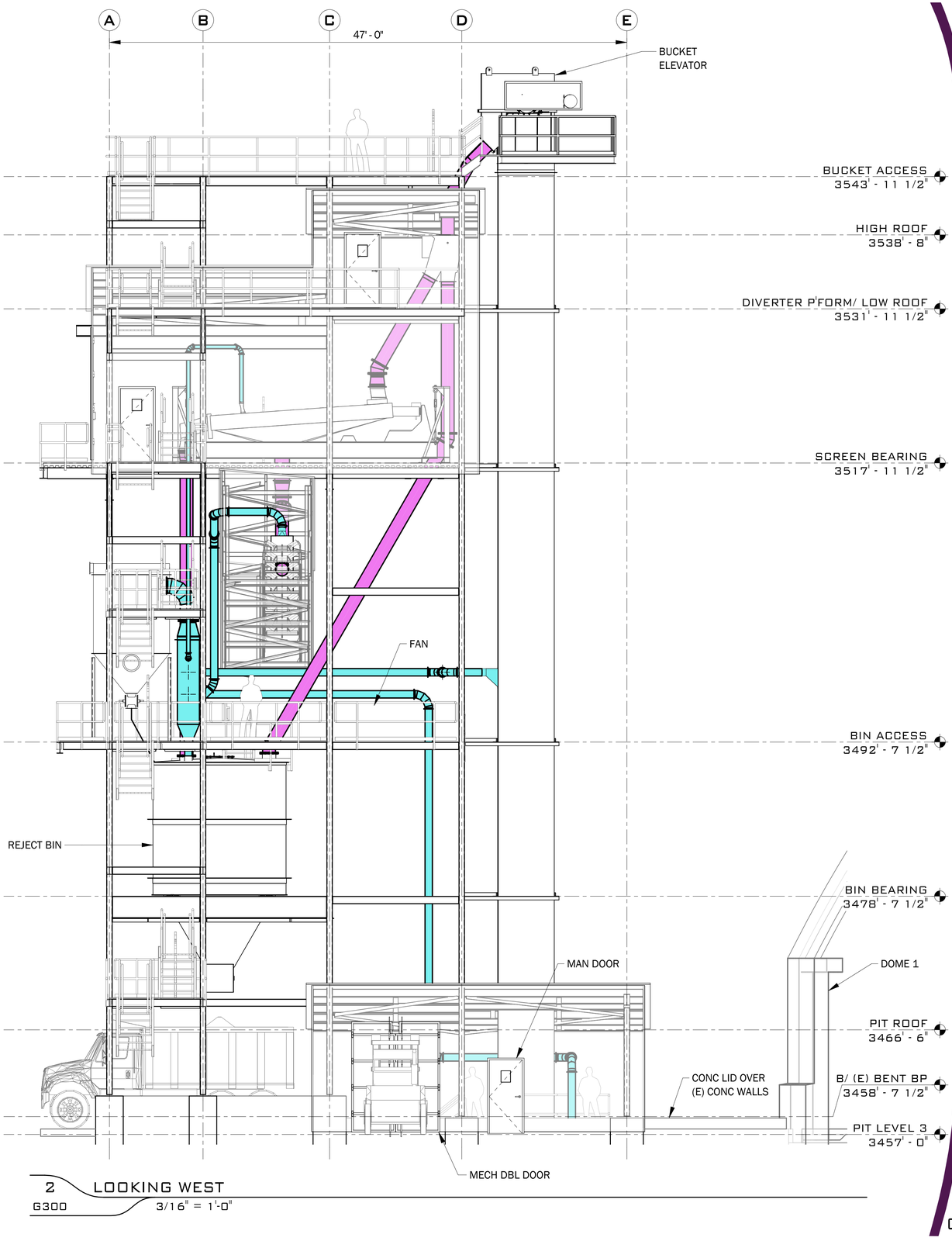
REV	DESCRIPTION	DATE	BY
A	FOR CLIENT REVIEW AND COMMENTS	2021-07-01	M. JEPPSON
B	APPROVAL FOR DETAILED ENG	2021-07-21	M. JEPPSON

PROJECT #: 21_026
PRELIMINARY
DATE: 2021-07-21
DRAWN: M. JEPPSON
ENG: S. ADAMS
PHONE #: 801.413.7672

G210 B



1 LOOKING NORTH
G300 3/16" = 1'-0"



2 LOOKING WEST
G300 3/16" = 1'-0"

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SCREEN TOWER ELEVATIONS

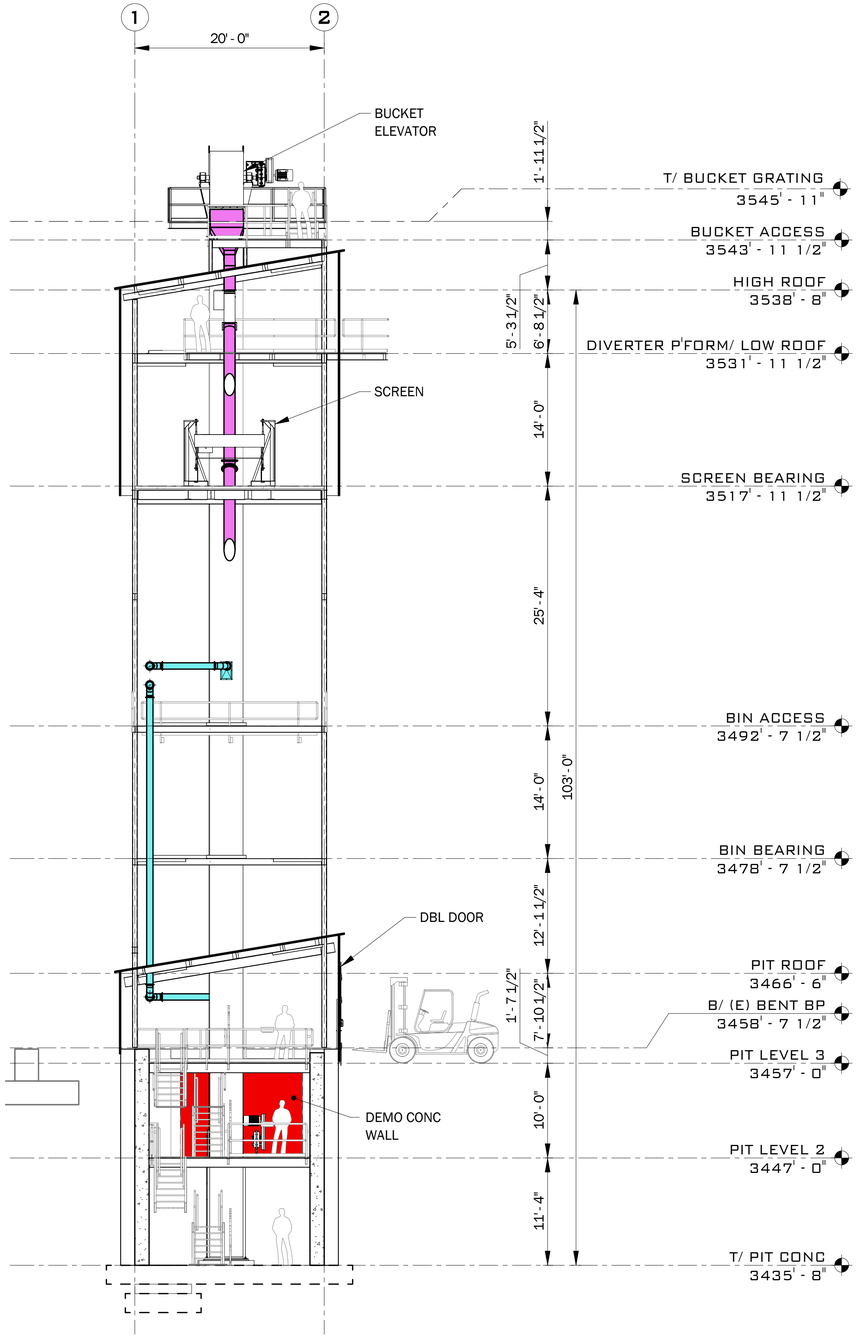
DOMES TO CV 300-01

INTREPID NORTH PLANT
CARLSBAD, NM

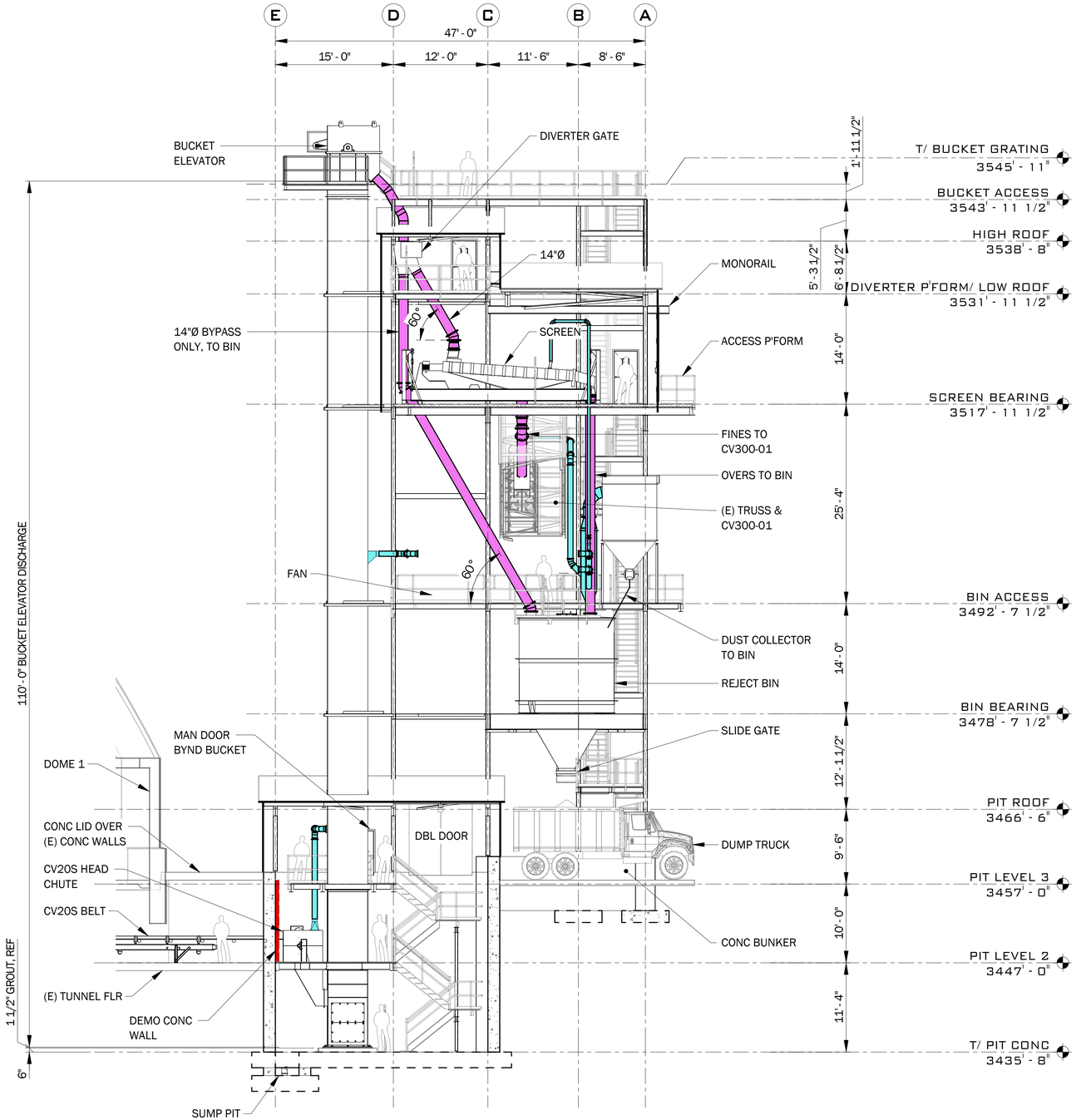
REV	DESCRIPTION	DATE	BY
A	FOR CLIENT REVIEW AND COMMENTS	2021-07-01	M. JEPPSON
B	APPROVAL FOR DETAILED ENG	2021-07-21	M. JEPPSON

PROJECT #: 21_026
PRELIMINARY
DATE: 2021-07-21
DRAWN: M. JEPPSON
ENG: S. ADAMS
PHONE #: 801.413.7672

G300 B



1 OVERALL SECTION LOOKING NORTH
G320 1/8" = 1'-0"



2 OVERALL SECTION LOOKING EAST
G320 1/8" = 1'-0"

INGENIUM DESIGN
INGENIUMDESIGN.US

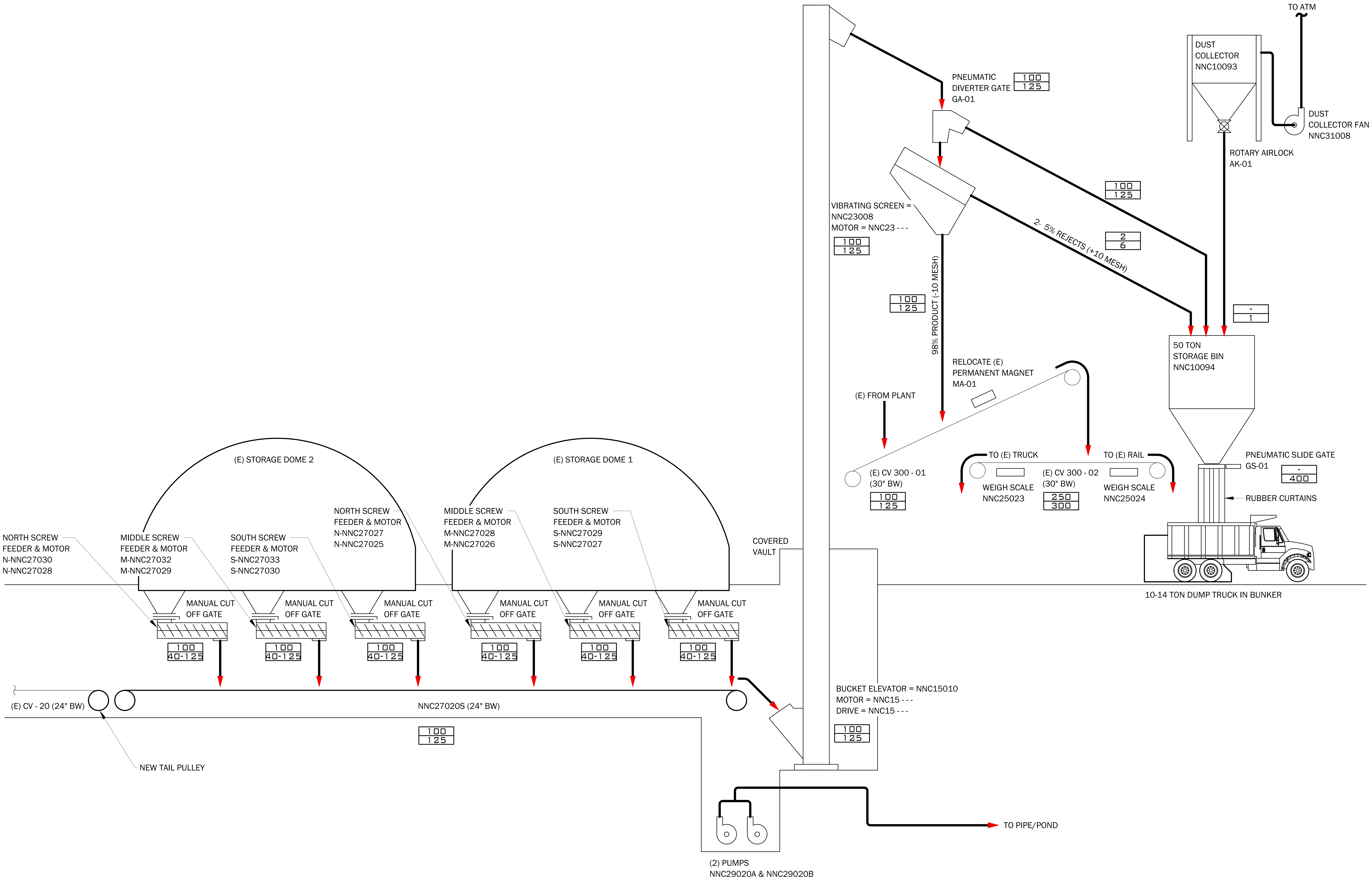
SCREEN TOWER SECTIONS
DOMES TO CV 300-01
INTREPID NORTH PLANT
CARLSBAD, NM

REV	DESCRIPTION	DATE	BY
A	FOR CLIENT REVIEW AND COMMENTS	2021-07-01	M. JEPPSON
B	APPROVAL FOR DETAILED ENG	2021-07-21	M. JEPPSON

PROJECT #: 21_026
PRELIMINARY
DATE: 2021-07-21
DRAWN: M. JEPPSON
ENG: S. ADAMS
PHONE #: 801.413.7672

G320 B

7/21/2021 11:49:00 AM



1 PROCESS FLOW DIAGRAM
M110 NO SCALE

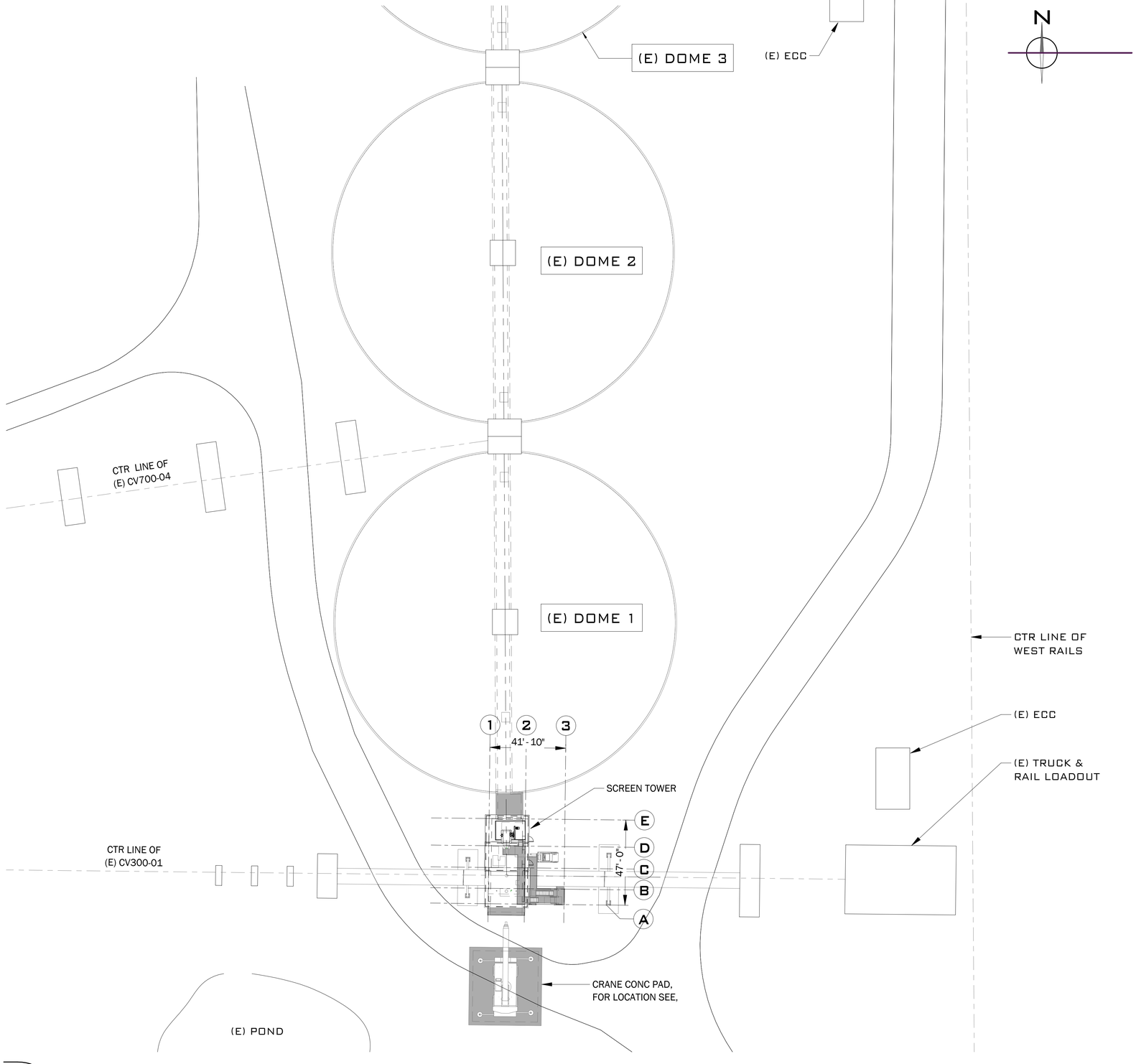
INGENIUM DESIGN
INGENIUMDESIGN.US

PROCESS FLOW DIAGRAM
DOMES TO CV 300-01
INTREPID NORTH PLANT
CARLSBAD, NM

REV	DESCRIPTION	DATE	BY
A	FOR CLIENT REVIEW	2021-05-13	T. TABISH
B	UPDATED CLIENT NUMBERS	2021-07-02	M. JEPPSON
C	APPROVAL FOR DETAILED ENG	2021-07-21	M. JEPPSON

PROJECT #: 21_026
PRELIMINARY
DATE: 2021-07-21
DRAWN: T. TABISH
ENG: S. ADAMS
PHONE #: 801.413.7672

M110 C



1 OVERALL SITE PLAN
S200 1" = 30'-0"

INGENIUM DESIGN
INGENIUMDESIGN.US

OVERALL SITE PLAN
DOMES TO CV 300-01
INTREPID NORTH PLANT
CARLSBAD, NM

REV	DESCRIPTION	DATE	BY
A	APPROVAL FOR DETAILED ENG	2021-07-21	M. JEPPSON

PROJECT #: 21_026
PRELIMINARY
DATE: 2021-07-21
DRAWN: M. JEPPSON
ENG: S. ADAMS
PHONE #: 801.413.7672

S200 A

Section 6

All Calculations

Show all calculations used to determine both the hourly and annual controlled and uncontrolled emission rates. All calculations shall be performed keeping a minimum of three significant figures. Document the source of each emission factor used (if an emission rate is carried forward and not revised, then a statement to that effect is required). If identical units are being permitted and will be subject to the same operating conditions, submit calculations for only one unit and a note specifying what other units to which the calculations apply. All formulas and calculations used to calculate emissions must be submitted. The "Calculations" tab in the UA2 has been provided to allow calculations to be linked to the emissions tables. Add additional "Calc" tabs as needed. If the UA2 or other spread sheets are used, all calculation spread sheet(s) shall be submitted electronically in Microsoft Excel compatible format so that formulas and input values can be checked. Format all spread sheets and calculations such that the reviewer can follow the logic and verify the input values. Define all variables. If calculation spread sheets are not used, provide the original formulas with defined variables. Additionally, provide subsequent formulas showing the input values for each variable in the formula. All calculations, including those calculations are imbedded in the Calc tab of the UA2 portion of the application, the printed Calc tab(s), should be submitted under this section.

Tank Flashing Calculations: The information provided to the AQB shall include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., NOI, permit, or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis. If Hysis is used, all relevant input parameters shall be reported, including separator pressure, gas throughput, and all other relevant parameters necessary for flashing calculation.

SSM Calculations: It is the applicant's responsibility to provide an estimate of SSM emissions or to provide justification for not doing so. In this Section, provide emissions calculations for Startup, Shutdown, and Routine Maintenance (SSM) emissions listed in the Section 2 SSM and/or Section 22 GHG Tables and the rational for why the others are reported as zero (or left blank in the SSM/GHG Tables). Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on calculating SSM emissions. If SSM emissions are greater than those reported in the Section 2, Requested Allowables Table, modeling may be required to ensure compliance with the standards whether the application is NSR or Title V. Refer to the Modeling Section of this application for more guidance on modeling requirements.

Glycol Dehydrator Calculations: The information provided to the AQB shall include the manufacturer's maximum design recirculation rate for the glycol pump. If GRI-Glycalc is used, the full input summary report shall be included as well as a copy of the gas analysis that was used.

Road Calculations: Calculate fugitive particulate emissions and enter haul road fugitives in Tables 2-A, 2-D and 2-E for:

1. If you transport raw material, process material and/or product into or out of or within the facility and have PER emissions greater than 0.5 tpy.
2. If you transport raw material, process material and/or product into or out of the facility more frequently than one round trip per day.

Significant Figures:

A. All emissions standards are deemed to have at least two significant figures, but not more than three significant figures.

B. At least 5 significant figures shall be retained in all intermediate calculations.

C. In calculating emissions to determine compliance with an emission standard, the following rounding off procedures shall be used:

(1) If the first digit to be discarded is less than the number 5, the last digit retained shall not be changed;

(2) If the first digit discarded is greater than the number 5, or if it is the number 5 followed by at least one digit other than the number zero, the last figure retained shall be increased by one unit; **and**

(3) If the first digit discarded is exactly the number 5, followed only by zeros, the last digit retained shall be rounded upward if it is an odd number, but no adjustment shall be made if it is an even number.

(4) The final result of the calculation shall be expressed in the units of the standard.

Control Devices: In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device regardless if the applicant takes credit for the reduction in emissions. The applicant can indicate in this section of the application if they chose to not take credit for the reduction in emission rates. For notices of intent submitted under 20.2.73 NMAC, only uncontrolled emission rates can be considered to determine applicability unless the state or federal Acts require the control. This information is necessary to determine if federally enforceable conditions are necessary for the control device, and/or if the control device produces its own regulated pollutants or increases emission rates of other pollutants.

N-EP-04 and N-EP-05 - Addition of HS Reject Loadout.

Description	Throughputs		Activities	Emission Factor (lb/ton) (a)			Controls	Hourly Emissions			Annual Emissions		
	Hourly	Annual		TSP	PM10	PM2.5		TSP	PM10	PM2.5	TSP	PM10	PM2.5
N-EP-04 and N-EP-05 "Materials Handling (Operational Flexibility - Combined Activity Unit)													
Loadout	300	2,628,000	Loading	0.0001	0.0001	0.00010		0.030	0.030	0.030	0.131	0.131	0.131
HS Reject Loadout	125	3,750	Reject Loading	0.0001	0.0001	0.00010		0.013	0.013	0.013	0.000	0.000	0.000
Dribble Bin	10	87,600	Drop Operation	0.0039	0.0019	0.00028		0.039	0.019	0.003	0.173	0.082	0.012
Operational Flexibility	25	438,000	Drop Operation	0.0039	0.0019	0.00028		0.098	0.047	0.007	0.863	0.408	0.062
Activities			Screening	0.017	0.0087	0.00059		0.418	0.218	0.015	3.661	1.905	0.129
			Conveyor Transfer Point	0.0021	0.0011	0.00031		0.051	0.028	0.008	0.450	0.241	0.068
			Tertiary Crushing	0.0038	0.0024	0.00044		0.095	0.060	0.011	0.834	0.526	0.096
			Loading	0.0001	0.0001	0.00010		0.003	0.003	0.003	0.022	0.022	0.022
							Total Emissions:	0.75	0.42	0.088	6.13	3.31	0.52

Notes:

(a) Emission factors for described activities were adapted from AP42, Fifth Edition Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, from TV Application .

N-EP-08 HS Process Transfer

Uncontrolled Emissions:

Descripton	Activity	Rate	Uncontrolled Emission Factor				Hourly Emissions			Annual Emissions at Continuous Operation		
			TSP	PM_{10}	$PM_{2.5}$	EF	TSP	PM_{10}	$PM_{2.5}$	TSP	PM_{10}	$PM_{2.5}$
		tons/hr	(lb/ton)	(lb/ton)	(lb/ton)	Reference	(lb/hr)	(lb/hr)	(lb/hr)	(tpy)	(tpy)	(tpy)
Pneumatic Diverter Gate GA-01	Drop	125	3.94E-03	1.86E-03	2.82E-04	AP-42 13.2.4 Eq. (1)[b]	0.49	0.23	0.04	2.16	1.02	0.15
Vibrating Screen NNC23	Screening	125	2.50E-02	8.70E-03	5.95E-05	AP-42 Table 11.19.2-2[a]	3.13	1.09	0.01	13.69	4.76	0.03
Product <10 Mesh to CV 300-01	Drop	125	3.94E-03	1.86E-03	2.82E-04	AP-42 13.2.4 Eq. (1)[b]	0.49	0.23	0.04	2.16	1.02	0.15
Rejects >10 Mesh to Storage Bin NNC10094	Drop	6	3.94E-03	1.86E-03	2.82E-04	AP-42 13.2.4 Eq. (1)[b]	0.02	0.01	0.00	0.10	0.05	0.01
Storage Bin Drop to Truck	Drop	6	3.94E-03	1.86E-03	2.82E-04	AP-42 13.2.4 Eq. (1)[b]	0.02	0.01	0.00	0.10	0.05	0.01
CV 300-01 to CV 300-02	Conveyor Transfer	125	3.00E-03	1.10E-03	3.17E-04	AP-42 Table 11.19.2-2[a]	0.38	0.14	0.04	1.64	0.60	0.17
Total Uncontrolled Emissions							**4.53**	**1.71**	**0.12**	**19.85**	**7.50**	**0.53**

Notes:

(a) No $PM_{2.5}$ emission factor reported by AP42, Table 11.19.2-2, $PM_{2.5}$ calculated based on control factor from PM_{10}.

Uncontrolled emission factor = Controlled total particulate emission factor/[(100% – PM_{10} Efficiency %)/100%]

Screening Controlled $PM_{2.5}$ = 0.000005 lb/ton; PM_{10} Efficiency = 91.6%

Conveyor Transfer Controlled PM2.5 = 1.3E-5 lb/ton; PM_{10} Control Efficiency = 95.9%

(b) Average wind speed of 9 mph and moisture content of 2.4% used in the drop equation with the particle size multipliers listed below

$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (pound [lb]/ton)}$$

Aerodynamic Particle Size Multiplier (k) For Equation 1		
< 30 µm	< 10 µm	< 2.5 µm
0.74	0.35	0.05

Controlled Emissions:

Controlled emissions based on the control efficiency of 99.5% listed in AP-42 Table B.2-3 for Fabric filter - low temperature.

Controlled emissions = Uncontrolled emissions x (100% - control efficiency %)/100%

Emission Point	Hourly Emissions			Annual Emissions at		
	TSP	PM_{10}	$PM_{2.5}$	TSP	PM_{10}	$PM_{2.5}$
	(lb/hr)	(lb/hr)	(lb/hr)	(tpy)	(tpy)	(tpy)
N-EP-08	0.02	0.01	0.00	0.10	0.04	0.00

Requested Allowable Emission:

Requested allowable emissions are based on:
- the NMAC 20.2.19.109(A)(2) requirement of 0.04 grains perdry cubic foot of discharge gas adjusted to standard conditions.
- design volumetric flow rate of 6000 acfm
- dust collector exhaust at ambient temperature & pressure with negligible moisture
- $PM=PM_{10}=PM_{2.5}$

$PM/PM_{10}/PM_{2.5}$ emissions = (0.04 gr/dscf)(6000 acfm)(1 dscf/acf)(60 min/hr)(lb/7000 gr)
= 2.06 lb/hr
= 9.01 TPY

N-EP-09 - Portable Non-road Engines

Model	Various
Capacity (HP):	1000
Capacity (KW):	746
Fuel:	Diesel
Emission Point:	N-EP-09

AP-42 Table 3.3-1. Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines				**EPA-420-B-16-022**			**Total**	
	Diesel Fuel			Diesel Fuel				
Pollutant	Emission Factor (lb/hp-hr) (power output)	Emission Factor (lb/MMBtu) (fuel input)	EMISSION FACTOR RATING	Max Tier 2* Engine (g/kw-hr)	lb/hr	TPY	**lb/hr**	**TPY**
NOx	0.031	4.41	D	7.5	12.33	0.00	**12.33**	**54.03**
CO	0.007	0.95	D	8	13.16	0.00	**13.16**	**57.63**
SOx	0.002	0.29	D		2.05	0.00	**2.05**	**8.98**
PM10	0.002	0.31	D	0.8	1.32	5.76	**1.32**	**5.76**
CO_2	1.150	164	B		1150.00	5037.00	**1,150.00**	**5,037.00**
Aldehydes	0.000	0.07	D		0.46	2.03	**0.46**	**2.03**
TOC					2.51	11.01	**2.51**	**11.01**
Exhaust	0.002	0.35	D		2.47	10.82	**2.47**	**10.82**
Evaporative	0.000	0.00	E		0.00	0.00	-	-
Crankcase	0.000	0.01	E		0.04	0.19	**0.04**	**0.19**
Refueling	0.000	0.00	E		0.00	0.00	-	-

*Emissions are based on the highest certified ratings, i.e. kW<8, and assumed 1000 hp

No HAPs are present above 0.1 tpy based on AP-42 Table 3.3-2

Emissions based on AP-42 factor for diesel

Emissions based on maximum Tier 2 emission rates.

Stack Parameters

Engine Tier	Engine Type	Engine Temperature	Intake Flow	Exhaust Flow	Dia (ft)	HP	Height (ft)
kW < 19	Diesel 4-Cycle Naturally Aspirated	900	64	160	0.11	25.47	3.2h
19 ≤ kW < 37	Diesel 4-Cycle Naturally Aspirated	900	124	312	0.15	49.60	2
37 ≤ kW < 56	Diesel 4-Cycle Naturally Aspirated	900	188	473	0.19	75.07	3
56 ≤ kW < 75	Diesel 4-Cycle Naturally Aspirated	900	251	633	0.22	100.54	4
75 ≤ kW < 130	Diesel 4-Cycle Naturally Aspirated	900	436	1,097	0.29	174.26	4
130 ≤ kW < 225	Diesel 4-Cycle Naturally Aspirated	900	500	1,259	0.31	200.00	6
225 ≤ kW< 450	Diesel 4-Cycle Naturally Aspirated	900	1,340	3,376	0.51	536.19	11
450 ≤ kW < 560	Diesel 4-Cycle Naturally Aspirated	900	1,877	4,726	0.60	750.67	14
560 ≤ kW < 900	Diesel 4-Cycle Naturally Aspirated	900	2,500	6,296	0.70	1000.00	16

Notes: Stack parameters estimated from Donaldson "Engine Horsepower & Exhaust Flow Guide"

Air intake estimated by (2.5 cfm/hp) x (HP capacity)

Exhaust Flow = (Exhaust Temp ^{o}F + 460)/540

Exhaust Diameter calculated based on 115 cfm/in^2 for horizontal discharges

kW = HP x 0.746

Stack height based on model iterations

Section 6.a

Green House Gas Emissions

(Submitting under 20.2.70, 20.2.72 20.2.74 NMAC)

Title V (20.2.70 NMAC), Minor NSR (20.2.72 NMAC), and PSD (20.2.74 NMAC) applicants must estimate and report greenhouse gas (GHG) emissions to verify the emission rates reported in the public notice, determine applicability to 40 CFR 60 Subparts, and to evaluate Prevention of Significant Deterioration (PSD) applicability. GHG emissions that are subject to air permit regulations consist of the sum of an aggregate group of these six greenhouse gases: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Calculating GHG Emissions:

1. Calculate the ton per year (tpy) GHG mass emissions and GHG CO_2e emissions from your facility.
2. GHG mass emissions are the sum of the total annual tons of greenhouse gases without adjusting with the global warming potentials (GWPs). GHG CO_2e emissions are the sum of the mass emissions of each individual GHG multiplied by its GWP found in Table A-1 in 40 CFR 98 Mandatory Greenhouse Gas Reporting.
3. Emissions from routine or predictable start up, shut down, and maintenance must be included.
4. Report GHG mass and GHG CO_2e emissions in Table 2-P of this application. Emissions are reported in **short** tons per year and represent each emission unit's Potential to Emit (PTE).
5. All Title V major sources, PSD major sources, and all power plants, whether major or not, must calculate and report GHG mass and CO2e emissions for each unit in Table 2-P.
6. For minor source facilities that are not power plants, are not Title V, and are not PSD there are three options for reporting GHGs in Table 2-P: 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHGs as a second separate unit; 3) or check the following □ By checking this box, the applicant acknowledges the total CO2e emissions are less than 75,000 tons per year.

Sources for Calculating GHG Emissions:

- Manufacturer's Data
- AP-42 Compilation of Air Pollutant Emission Factors at http://www.epa.gov/ttn/chief/ap42/index.html
- EPA's Internet emission factor database WebFIRE at http://cfpub.epa.gov/webfire/
- 40 CFR 98 Mandatory Green House Gas Reporting except that tons should be reported in short tons rather than in metric tons for the purpose of PSD applicability.
- API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. August 2009 or most recent version.
- Sources listed on EPA's NSR Resources for Estimating GHG Emissions at http://www.epa.gov/nsr/clean-air-act-permitting-greenhouse-gases:

Global Warming Potentials (GWP):
Applicants must use the Global Warming Potentials codified in Table A-1 of the most recent version of 40 CFR 98 Mandatory Greenhouse Gas Reporting. The GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to that of one unit mass of CO_2 over a specified time period.

"Greenhouse gas" for the purpose of air permit regulations is defined as the aggregate group of the following six gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. **(20.2.70.7 NMAC, 20.2.74.7 NMAC).** You may also find GHGs defined in 40 CFR 86.1818-12(a).

Metric to Short Ton Conversion:
Short tons for GHGs and other regulated pollutants are the standard unit of measure for PSD and title V permitting programs. 40 CFR 98 Mandatory Greenhouse Reporting requires metric tons.
1 metric ton = 1.10231 short tons (per Table A-2 to Subpart A of Part 98 – Units of Measure Conversions)

Section 7

Information Used To Determine Emissions

Information Used to Determine Emissions shall include the following:

- ☐ If manufacturer data are used, include specifications for emissions units and control equipment, including control efficiencies specifications and sufficient engineering data for verification of control equipment operation, including design drawings, test reports, and design parameters that affect normal operation.
- ☐ If test data are used, include a copy of the complete test report. If the test data are for an emissions unit other than the one being permitted, the emission units must be identical. Test data may not be used if any difference in operating conditions of the unit being permitted and the unit represented in the test report significantly effect emission rates.
- ☒ If the most current copy of AP-42 is used, reference the section and date located at the bottom of the page. Include a copy of the page containing the emissions factors, and clearly mark the factors used in the calculations.
- ☐ If an older version of AP-42 is used, include a complete copy of the section.
- ☒ If an EPA document or other material is referenced, include a complete copy.
- ☐ Fuel specifications sheet.
- ☐ If computer models are used to estimate emissions, include an input summary (if available) and a detailed report, and a disk containing the input file(s) used to run the model. For tank-flashing emissions, include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., permit or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis.

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Table B.2-3 (cont.).

AIRS Code[b]	Type Of Collector	Particle Size (µm)		
		0 - 2.5	2.5 - 6	6 - 10
016	Fabric filter - high temperature	99	99.5	99.5
017	Fabric filter - med temperature	99	99.5	99.5
018	Fabric filter - low temperature	99	99.5	99.5
046	Process change	NA	NA	NA
049	Liquid filtration system	50	75	85
050	Packed-gas absorption column	90	95	99
051	Tray-type gas absorption column	25	85	95
052	Spray tower	20	80	90
053	Venturi scrubber	90	95	99
054	Process enclosed	1.5	3.2	3.7
055	Impingement plate scrubber	25	95	99
056	Dynamic separator (dry)	90	95	99
057	Dynamic separator (wet)	50	75	85
058	Mat or panel filter - mist collector	92	94	97
059	Metal fabric filter screen	10	15	20
061	Dust suppression by water sprays	40	65	90
062	Dust suppression by chemical stabilizer or wetting agents	40	65	90
063	Gravel bed filter	0	5	80
064	Annular ring filter	80	90	97
071	Fluid bed dry scrubber	10	20	90
075	Single cyclone	10	35	50
076	Multiple cyclone w/o fly ash reinjection	80	95	95
077	Multiple cyclone w/fly ash reinjection	50	75	85
085	Wet cyclonic separator	50	75	85
086	Water curtain	10	45	90

[a] Data represent an average of actual efficiencies. Efficiencies are representative of well designed and well operated control equipment. Site-specific factors (e. g., type of particulate being collected, varying pressure drops across scrubbers, maintenance of equipment, etc.) will affect collection efficiencies. Efficiencies shown are intended to provide guidance for estimating control equipment performance when source-specific data are not available. NA = not applicable.

[b] Control codes in Aerometric Information Retrieval System (AIRS), formerly National Emissions Data Systems.

The quantity of particulate emissions generated by either type of drop operation, per kilogram (kg) (ton) of material transferred, may be estimated, with a rating of A, using the following empirical expression:[11]

$$E = k(0.0016) \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (kg/megagram [Mg])} \quad (1)$$

$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (pound [lb]/ton)}$$

where:

E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s) (miles per hour [mph])
M = material moisture content (%)

The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1				
< 30 µm	< 15 µm	< 10 µm	< 5 µm	< 2.5 µm
0.74	0.48	0.35	0.20	0.053[a]

[a] Multiplier for < 2.5 µm taken from Reference 14.

The equation retains the assigned quality rating if applied within the ranges of source conditions that were tested in developing the equation, as follows. Note that silt content is included, even though silt content does not appear as a correction parameter in the equation. While it is reasonable to expect that silt content and emission factors are interrelated, no significant correlation between the 2 was found during the derivation of the equation, probably because most tests with high silt contents were conducted under lower winds, and vice versa. It is recommended that estimates from the equation be reduced 1 quality rating level if the silt content used in a particular application falls outside the range given:

Ranges Of Source Conditions For Equation 1			
Silt Content (%)	Moisture Content (%)	Wind Speed	
		m/s	mph
0.44 - 19	0.25 - 4.8	0.6 - 6.7	1.3 - 15

To retain the quality rating of the equation when it is applied to a specific facility, reliable correction parameters must be determined for specific sources of interest. The field and laboratory procedures for aggregate sampling are given in Reference 3. In the event that site-specific values for

Table 11.19.2-2 (English Units). EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS (lb/Ton)[a]

Source [b]	Total Particulate Matter [r,s]	EMISSION FACTOR RATING	Total PM-10	EMISSION FACTOR RATING	Total PM-2.5	EMISSION FACTOR RATING
Primary Crushing (SCC 3-05-020-01)	ND		ND[n]		ND[n]	
Primary Crushing (controlled) (SCC 3-05-020-01)	ND		ND[n]		ND[n]	
Secondary Crushing (SCC 3-05-020-02)	ND		ND[n]		ND[n]	
Secondary Crushing (controlled) (SCC 3-05-020-02)	ND		ND[n]		ND[n]	
Tertiary Crushing (SCC 3-050030-03)	0.0054[d]	E	0.0024[o]	C	ND[n]	
Tertiary Crushing (controlled) (SCC 3-05-020-03)	0.0012[d]	E	0.00054[p]	C	0.00010[q]	E
Fines Crushing (SCC 3-05-020-05)	0.0390[e]	E	0.0150[e]	E	ND	
Fines Crushing (controlled) (SCC 3-05-020-05)	0.0030[f]	E	0.0012[f]	E	0.000070[q]	E
Screening (SCC 3-05-020-02, 03)	0.025[c]	E	0.0087[l]	C	ND	
Screening (controlled) (SCC 3-05-020-02, 03)	0.0022[d]	E	0.00074[m]	C	0.000050[q]	E
Fines Screening (SCC 3-05-020-21)	0.30[g]	E	0.072[g]	E	ND	
Fines Screening (controlled) (SCC 3-05-020-21)	0.0036[g]	E	0.0022[g]	E	ND	
Conveyor Transfer Point (SCC 3-05-020-06)	0.0030[h]	E	0.00110[h]	D	ND	
Conveyor Transfer Point (controlled) (SCC 3-05-020-06)	0.00014[i]	E	4.6×10^{-5}[i]	D	1.3×10^{-5}[q]	E
Wet Drilling - Unfragmented Stone (SCC 3-05-020-10)	ND		8.0×10^{-5}[j]	E	ND	
Truck Unloading -Fragmented Stone (SCC 3-05-020-31)	ND		1.6×10^{-5}[j]	E	ND	
Truck Loading - Conveyor, crushed stone (SCC 3-05-020-32)	ND		0.00010[k]	E	ND	

a. Emission factors represent uncontrolled emissions unless noted. Emission factors in lb/Ton of material of throughput. SCC = Source Classification Code. ND = No data.

b. Controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent, and the same facilities operating wet suppression systems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over of the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays. Although the moisture content was the only variable measured, other process features may have as much influence on emissions from a given source. Visual observations from each source under normal operating conditions are probably the best indicator of which emission factor is most appropriate. Plants that employ substandard control measures as indicated by visual observations should use the uncontrolled factor with an appropriate control efficiency that best reflects the effectiveness of the controls employed.

c. References 1, 3, 7, and 8

d. References 3, 7, and 8

Nonroad Compression-Ignition Engines: Exhaust Emission Standards

	Rated Power (kW)	Tier	Model Year	NMHC (g/kW-hr)	NMHC + NOx (g/kW-hr)	NOx (g/kW-hr)	PM (g/kW-hr)	CO (g/kW-hr)	Smoke [a] (Percentage)	Useful Life (hours /years) [b]	Warranty Period (hours /years) [b]
Federal	kW < 8	1	2000-2004	-	10.5	-	1.0	8.0	20/15/50	3,000/5	1,500/2
		2	2005-2007	-	7.5	-	0.80	8.0			
		4	2008+	-	7.5	-	0.40 [c]	8.0			
	8 ≤ kW < 19	1	2000-2004	-	9.5	-	0.80	6.6		3,000/5	1,500/2
		2	2005-2007	-	7.5	-	0.80	6.6			
		4	2008+	-	7.5	-	0.40	6.6			
	19 ≤ kW < 37	1	1999-2003	-	9.5	-	0.80	5.5		5,000/7 [d]	3,000/5 [e]
		2	2004-2007	-	7.5	-	0.60	5.5			
		4	2008-2012	-	7.5	-	0.30	5.5			
			2013+	-	4.7	-	0.03	5.5			
	37 ≤ kW < 56	1	1998-2003	-	-	9.2	-	-		8,000/10	3,000/5
		2	2004-2007	-	7.5	-	0.40	5.0			
		3 [f]	2008-2011	-	4.7	-	0.40	5.0			
		4 (Option 1) [g]	2008-2012	-	4.7	-	0.30	5.0			
		4 (Option 2) [g]	2012	-	4.7	-	0.03	5.0			
		4	2013+	-	4.7	-	0.03	5.0			
	56 ≤ kW < 75	1	1998-2003	-	-	9.2	-	-			
		2	2004-2007	-	7.5	-	0.40	5.0			
		3	2008-2011	-	4.7	-	0.40	5.0			
		4	2012-2013 [h]	-	4.7	-	0.02	5.0			
			2014+ [i]	0.19	-	0.40	0.02	5.0			
	75 ≤ kW < 130	1	1997-2002	-	-	9.2	-	-			
		2	2003-2006	-	6.6	-	0.30	5.0			
		3	2007-2011	-	4.0	-	0.30	5.0			
		4	2012-2013 [h]	-	4.0	-	0.02	5.0			
			2014+	0.19	-	0.40	0.02	5.0			

Continued

	Rated Power (kW)	Tier	Model Year	NMHC (g/kW-hr)	NMHC + NOx (g/kW-hr	NOx (g/kW-hr	PM (g/kW-hr	CO (g/kW-hr)	Smoke [a] (Percentage)	Useful Life (hours /years) [b]	Warranty Period (hours /years) [b]
Federal	130 ≤ kW < 225	1	1996-2002	1.3 [j]	-	9.2	0.54	11.4	20/15/50	8,000/10	3,000/5
		2	2003-2005	-	6.6	-	0.20	3.5			
		3	2006-2010	-	4.0	-	0.20	3.5			
		4	2011-2013 [h]	-	4.0	-	0.02	3.5			
			2014+ [i]	0.19	-	0.40	0.02	3.5			
	225 ≤ kW < 450	1	1996-2000	1.3 [j]	-	9.2	0.54	11.4			
		2	2001-2005	-	6.4	-	0.20	3.5			
		3	2006-2010	-	4.0	-	0.20	3.5			
		4	2011-2013 [h]	-	4.0	-	0.02	3.5			
			2014+ [i]	0.19	-	0.40	0.02	3.5			
	450 ≤ kW < 560	1	1996-2001	1.3 [j]	-	9.2	0.54	11.4			
		2	2002-2005	-	6.4	-	0.20	3.5			
		3	2006-2010	-	4.0	-	0.20	3.5			
		4	2011-2013 [h]	-	4.0	-	0.02	3.5			
			2014+ [i]	0.19	-	0.40	0.02	3.5			
	560 ≤ kW < 900	1	2000-2005	1.3 [j]	-	9.2	0.54	11.4			
		2	2006-2010	-	6.4	-	0.20	3.5			
		4	2011-2014	0.40	-	3.5	0.10	3.5			
			2015+ [i]	0.19	-	3.5 [k]	0.04 [l]	3.5			
	kW > 900	1	2000-2005	1.3 [j]	-	9.2	0.54	11.4			
		2	2006-2010	-	6.4	-	0.20	3.5			
		4	2011-2014	0.40	-	3.5 [k]	0.10	3.5			
			2015+ [i]	0.19	-	3.5 [k]	0.04 [l]	3.5			

Notes on following page.

Notes:

- For Tier 1, 2, and 3 standards, exhaust emissions of nitrogen oxides (NOx), carbon monoxide (CO), hydrocarbons (HC), and non-methane hydrocarbons (NMHC) are measured using the procedures in 40 Code of Federal Regulations (CFR) Part 89 Subpart E. For Tier 1, 2, and 3 standards, particulate matter (PM) exhaust emissions are measured using the California Regulations for New 1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines.
- For Tier 4 standards, engines are tested for transient and steady-state exhaust emissions using the procedures in 40 CFR Part 1039 Subpart F. Transient standards do not apply to engines below 37 kilowatts (kW) before the 2013 model year, constant-speed engines, engines certified to Option 1, and engines above 560 kW.
- Tier 2 and later model naturally aspirated nonroad engines shall not discharge crankcase emissions into the atmosphere unless these emissions are permanently routed into the exhaust. This prohibition does not apply to engines using turbochargers, pumps, blowers, or superchargers.
- In lieu of the Tier 1, 2, and 3 standards for NOX, NMHC + NOX, and PM, manufacturers may elect to participate in the averaging, banking, and trading (ABT) program described in 40 CFR Part 89 Subpart C.

a Smoke emissions may not exceed 20 percent during the acceleration mode, 15 percent during the lugging mode, and 50 percent during the peaks in either mode. Smoke emission standards do not apply to single-cylinder engines, constant-speed engines, or engines certified to a PM emission standard of 0.07 grams per kilowatt-hour (g/kW-hr) or lower. Smoke emissions are measured using procedures in 40 CFR Part 86 Subpart I.

b Useful life and warranty period are expressed hours and years, whichever comes first.

c Hand-startable air-cooled direct injection engines may optionally meet a PM standard of 0.60 g/kW-hr. These engines may optionally meet Tier 2 standards through the 2009 model years. In 2010 these engines are required to meet a PM standard of 0.60 g/kW-hr.

d Useful life for constant speed engines with rated speed 3,000 revolutions per minute (rpm) or higher is 5 years or 3,000 hours, whichever comes first.

e Warranty period for constant speed engines with rated speed 3,000 rpm or higher is 2 years or 1,500 hours, whichever comes first.

f These Tier 3 standards apply only to manufacturers selecting Tier 4 Option 2. Manufacturers selecting Tier 4 Option 1 will be meeting those standards in lieu of Tier 3 standards.

g A manufacturer may certify all their engines to either Option 1 or Option 2 sets of standards starting in the indicated model year. Manufacturers selecting Option 2 must meet Tier 3 standards in the 2008-2011 model years.

h These standards are phase-out standards. Not more than 50 percent of a manufacturer's engine production is allowed to meet these standards in each model year of the phase out period. Engines not meeting these standards must meet the final Tier 4 standards.

i These standards are phased in during the indicated years. At least 50 percent of a manufacturer's engine production must meet these standards during each year of the phase in. Engines not meeting these standards must meet the applicable phase-out standards.

j For Tier 1 engines the standard is for total hydrocarbons.

k The NOx standard for generator sets is 0.67 g/kW-hr.

l The PM standard for generator sets is 0.03 g/kW-hr.

Citations: Code of Federal Regulations (CFR) citations:

- 40 CFR 89.112 = Exhaust emission standards
- 40 CFR 1039.101 = Exhaust emission standards for after 2014 model year
- 40 CFR 1039.102 = Exhaust emission standards for model year 2014 and earlier
- 40 CFR 1039 Subpart F = Exhaust emissions transient and steady state test procedures
- 40 CFR 86 Subpart I = Smoke emission test procedures
- 40 CFR 1065 = Test equipment and emissions measurement procedures

(1) a thirty meters for stacks not influenced by the source itself, nearby structures or terrain; or

(2) for stacks that are influenced by nearby structures or terrain, the height determined by use of the equation Hg = H + 1.5 L, where: Hg = good engineering practice stack heights; H = the height of the source or nearby structure; and L = the lesser dimension (height or width) of the source or nearby structure.

G. **"Modification"** means a physical change or change in the manner of operation which increases the amount of any air contaminant emitted by the potash, salt or sodium sulfate processing equipment or which results in the emission of any air contaminant not previously emitted.

H. **"New potash, salt or sodium sulfate processing equipment"** means process equipment or process unit thereof, the fabrication, erection, installation or modification of which is commenced on or after January 1, 1979, and includes all crushers, grinders, screens and other size-classification units, compactors, granulators, evaporators, dryers, conveyors, storage piles (including ore, product or other storage piles) facilities for bagging and loading, and any other process units with particulate matter emissions to the atmosphere. New potash, salt or sodium sulfate processing equipment does not include process equipment installed solely to replace equivalent equipment installed prior to January 1, 1979, if the replacement equipment will not result in a significant increase in capacity.

I. **"Part"** means an air quality control regulation under Title 20, Chapter 2 of the New Mexico Administrative Code, unless otherwise noted; as adopted or amended by the Board.

J. **"Potash"** means muriate potash (the chemical compound potassium chloride, KCl), sulfate of potash (the chemical compound sulfate K_2SO_4), and langbeinite (the chemical compound potassium magnesium sulfate, $K_2SO_4 \cdot 2MgSO_4$), or any other potassium, magnesium or mixed-potassium salts, and includes ores, intermediates, products and reaction products of such compounds.

K. **"Salt"** means the chemical compound sodium chloride (NaCl) and includes ores, intermediates, products and reaction products of this compound.

L. **"Sodium sulfate"** means the chemical compound sodium sulfate (Na_2SO_4) and includes ores, intermediates, products and reaction products of this compound.

M. **"Standard conditions"** means temperature of 68 degrees Fahrenheit and pressure of 29.92 inches of mercury.

N. **"Submerged combustion evaporators"** means vessels in which combustion occurs beneath the surface of a solution of dissolved potash, salt or sodium sulfate materials for the purpose of evaporating water.

[11/30/95; 20.2.19.7 NMAC - Rn, 20 NMAC 2.19.107 10/31/02]

20.2.19.8 **AMENDMENT AND SUPERSESSION OF PRIOR REGULATIONS:** This Part amends and supersedes Air Quality Control Regulation ("AQCR") 508 -- Potash, Salt or Sodium Sulfate Processing Equipment -- Particulate Matter last filed July 16, 1986.

A. All references to AQCR 508 in any other rule shall be construed as a reference to this Part.

B. The amendment and supersession of AQCR 508 shall not affect any administrative or judicial enforcement action pending on the effective date of such amendment nor the validity of any permit issued pursuant to AQCR 508.

[11/30/95; 20.2.19.8 NMAC - Rn, 20 NMAC 2.19.106 10/31/02]

20.2.19.9 **DOCUMENTS:** Documents cited in this Part may be viewed at the New Mexico Environment Department, Air Quality Bureau, Runnels Building, 1190 Saint Francis Drive, Santa Fe, NM 87505 [2048 Galisteo St., Santa Fe, NM 87505].

[11/30/95; 20.2.19.9 NMAC - Rn, 20 NMAC 2.19.108 10/31/02]

20.2.19.10 to 20.2.19.108 [RESERVED]

20.2.19.109 **ALLOWABLE EMISSIONS:**

A. The owner or operator of new potash, salt or sodium sulfate processing equipment shall not permit, cause, suffer or allow particulate matter emissions to the atmosphere:

(1) to exceed 0.10 grains per dry cubic foot of discharge gas adjusted to standard conditions from dryers; or

(2) to exceed 0.04 grains per dry cubic foot of discharge gas adjusted to standard conditions from all other processing equipment.

Donaldson

Engine Horsepower & Exhaust Flow Guide

Engine Data

The data shown in this section is a collection of information gathered by Donaldson from various sources and should be used for estimating.

For exact information, consult your engine manufacturer.

Allis Chalmers
Case
Caterpillar
Continental Motors
Cummins
Detroit Diesel
Deutz
Ford
Hatz Diesel
Hino
Isuzu
Iveco
John Deere
Kohler
Kubota
Lister
Lombardini
Mack
Mercedes-Benz
Mitsubishi
MTU of North America
Navistar
Nissan
Perkins
Renault
Same
Teledyne
Volkswagon
Volvo
Waukesha
White Eng
Yanmar

Engine Exhaust Flow Rate Calculation

Exhaust flow rate may be calculated using the following formula. Exhaust temperature and intake airflow rate must be determined to calculate the exhaust flow rate. Exhaust temperature and manufacturers maximum backpressure may be approximated using the chart below.

$$\left(\frac{\text{Exhaust Temp. (°F)} + 460}{540}\right) \times \text{Intake Airflow (CFM)} = \text{Exhaust Flow}$$

Engine Type	Engine Temperature	Maximum Backpressure
Diesel 2-Cycle Naturally Aspirated	= 900°F	4" Hg
Diesel 2-Cycle Turbo	= 750°F	3" Hg
Diesel 4-Cycle Naturally Aspirated	= 1000°F	3" Hg
Diesel 4-Cycle Turbo	= 900°F	3" Hg
Gasoline (all types)	= 1200°F	4" Hg

Note: If you are spec'ing a dual muffler system divide engine's exhaust flow (CFM) by two

Engine Airflow Calculations

CFM intake rate is available from the engine manufacturer. If CFM specifications are not available, use the volumetric efficiency calculation. A simple calculation for cfm is to multiple the horsepower of your engine by 2.5.

4-Cycle Engine Airflow Calculation

$$\left(\frac{\text{Engine Size (CID)} \times \text{RPM}}{3456}\right) \times \text{Volumetric Efficiency} = \text{Intake Airflow (CFM)}$$

2-Cycle Engine Airflow Calculation

$$\left(\frac{\text{Engine Size (CID)} \times \text{RPM}}{1728}\right) \times \text{Volumetric Efficiency} = \text{Intake Airflow (CFM)}$$

Volumetric Efficiency

Engine volumetric efficiency ratings are best obtained from your engine manufacturer. Engines operating with electronic controls could have volumetric efficiency ratings of more than 2.0. Airflow on these engines should be verified by the engine manufacturer.

4 Cycle GAS Engine	Naturally Aspirated	=	.70 - .80
2 and 4 Cycle DIESEL Engine	Naturally Aspirated	=	.90
	Turbo*	=	1.50 - 3.00*

* If VE rating is not available, Donaldson recommends using the highest value to insure proper airflow.

Section 8

Map(s)

A map such as a 7.5 minute topographic quadrangle showing the exact location of the source. The map shall also include the following:

The UTM or Longitudinal coordinate system on both axes	An indicator showing which direction is north
A minimum radius around the plant of 0.8km (0.5 miles)	Access and haul roads
Topographic features of the area	Facility property boundaries
The name of the map	The area which will be restricted to public access
A graphical scale	

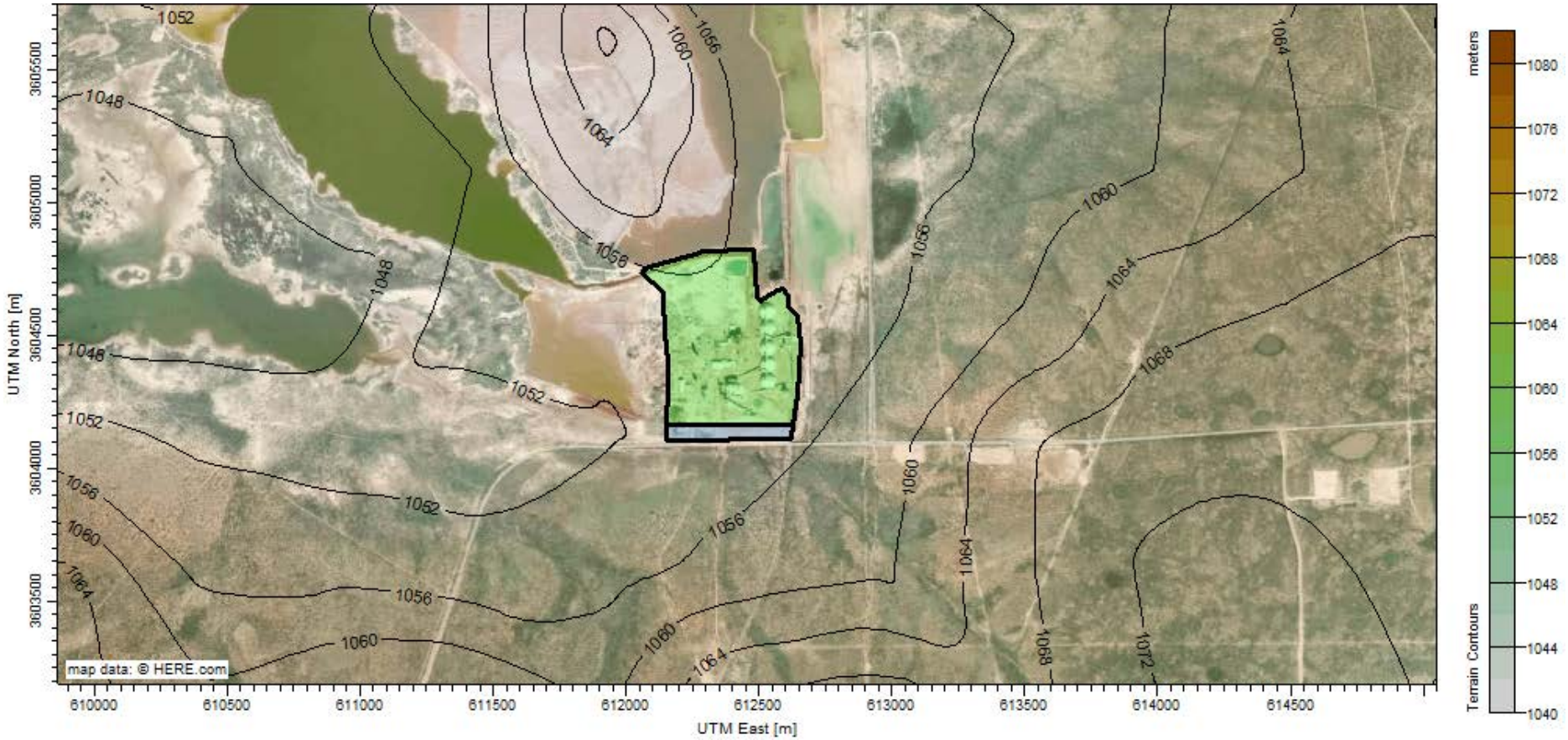

Figure 1 - Intrepid North Compaction Plant UTM Coordinates in NAD83 Zone 13. Elevation in meters, NED 1 deg.

Section 9

Proof of Public Notice

(for NSR applications submitting under 20.2.72 or 20.2.74 NMAC)
(This proof is required by: 20.2.72.203.A.14 NMAC "Documentary Proof of applicant's public notice")

X I have read the AQB "Guidelines for Public Notification for Air Quality Permit Applications"
This document provides detailed instructions about public notice requirements for various permitting actions. It also provides public notice examples and certification forms. Material mistakes in the public notice will require a re-notice before issuance of the permit.

Unless otherwise allowed elsewhere in this document, the following items document proof of the applicant's Public Notification. Please include this page in your proof of public notice submittal with checkmarks indicating which documents are being submitted with the application.

New Permit and **Significant Permit Revision** public notices must include all items in this list.

Technical Revision public notices require only items 1, 5, 9, and 10.

Per the Guidelines for Public Notification document mentioned above, include:

1. √ A copy of the certified letter receipts with post marks (20.2.72.203.B NMAC)
2. √ A list of the places where the public notice has been posted in at least four publicly accessible and conspicuous places, including the proposed or existing facility entrance. (e.g: post office, library, grocery, etc.)
3. √ A copy of the property tax record (20.2.72.203.B NMAC).
4. √ A sample of the letters sent to the owners of record.
5. √ A sample of the letters sent to counties, municipalities, and Indian tribes.
6. √ A sample of the public notice posted and a verification of the local postings.
7. √ A table of the noticed citizens, counties, municipalities and tribes and to whom the notices were sent in each group.
8. √ A copy of the public service announcement (PSA) sent to a local radio station and documentary proof of submittal.
9. √ A copy of the classified or legal ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
10. √ A copy of the display ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
11. √ A map with a graphic scale showing the facility boundary and the surrounding area in which owners of record were notified by mail. This is necessary for verification that the correct facility boundary was used in determining distance for notifying land owners of record.

Section 9

Proof of Public Notice

Item 1

Copy of Certified Letter Receipts

Certified Mail Receipts for North NSR Sig Rev Public Notice Letters

7019 1120 0001 0456 0773

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee $ 3.75
Extra Services & Fees (check box, add fee as appropriate)
☒ Return Receipt (hardcopy) $ 3.05
☐ Return Receipt (electronic) $
☐ Certified Mail Restricted Delivery $
☐ Adult Signature Required $
☐ Adult Signature Restricted Delivery $
Postage $ 0.53
Total Postage and Fees $ 7.33

Postmark Here
NOV 22 2021
N PN SigRev 2021

Sent To BLM CBFO
Street and Apt. No., or PO Box No. 620 E. GREENE ST.
City, State, ZIP+4® CARLSBAD, NM 88220

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 1120 0001 0456 0766

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee $ 3.75
Extra Services & Fees (check box, add fee as appropriate)
☒ Return Receipt (hardcopy) $ 3.05
☐ Return Receipt (electronic) $
☐ Certified Mail Restricted Delivery $
☐ Adult Signature Required $
☐ Adult Signature Restricted Delivery $
Postage $ 0.53
Total Postage and Fees $ 7.33

Postmark Here
NOV 22 2021
N-SigRev PN 2021

Sent To Hobbs City Hall
Street and Apt. No., or PO Box No. 200 E. BROADWAY
City, State, ZIP+4® Hobbs, NM 88240

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7019 1120 0001 0456 0759

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee $ 3.75
Extra Services & Fees (check box, add fee as appropriate)
☒ Return Receipt (hardcopy) $ 3.05
☐ Return Receipt (electronic) $
☐ Certified Mail Restricted Delivery $
☐ Adult Signature Required $
☐ Adult Signature Restricted Delivery $
Postage $ 0.53
Total Postage and Fees $ 7.33

Postmark Here
NOV 22 2021
CARLSBAD
N SigRev PN 2021

Sent To
Lea County Clerk's Office
Street P.O. Box 1507
City, Lovington, NM 88260

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Section 9

Proof of Public Notice

Item 2

List of Public Notice Posting Locations

PUBLIC NOTICE POSTING LOCATIONS

NORTH PLANT NSR PERMIT 321

SIGNIFICANT REVISION

- Intrepid Potash, North Plant Entrance
- Hobbs City Hall at 200 East Broadway Street in Hobbs, NM
- Hobbs Public Library at 509 North Shipp Street in Hobbs, NM
- La Tienda at 420 East Marland Street in Hobbs, NM

Section 9

Proof of Public Notice

Item 3

Copy of Property Tax Record

OWNER NAME:

2021-0016842
INTREPID POTASH NEW MEXICO LLC
ACCOUNTS PAYABLE %
1001 17TH ST STE 1050
DENVER CO 80202-80202

2021 TAX BILL

Remit to: SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N. MAIN AVE., SUITE 3C
LOVINGTON, NEW MEXICO 88260-4000
(575) 396-8643

BILL NO. ➤ 2021-0016842

OWNER NO. ➤ 0090109

Your mortgage company may be paying this bill:
However, it is the responsibility of the property owner to ensure property taxes are paid
Owners with mortgages should contact lender to determine responsibility for payment of tax.

NET TAXABLE VALUES WILL BE ALLOCATED TO THE GOVERNMENTAL UNITS IN SCHOOL DISTRICT ➤ 160

PROPERTY # 4 960 921 141 907
SECTION-08 TOWNSHIP-20S RANGE-32E
40 AC BEING SW4SW4
PATENT FROM BLM #30-2014-0010
6/23/2014-UNITED STATES OF AMERICA
BUREAU OF LAND MANAGEMENT
PROPERTY # 4 960 921 142 539
SECTION-17 TOWNSHIP-20S RANGE-32E
160 AC BEING THE W2NW4 & W2SW4
PATENT FROM BLM #30-2014-0010
6/23/2014-UNITED STATES OF AMERICA
BUREAU OF LAND MANAGEMENT
PROPERTY # 4 960 921 142 816
SECTION-18 TOWNSHIP-20S RANGE-32E
238.49 AC BEING LOT 1, 2 & 4,
SE4SW4, & S2SE4

PATENT FROM BLM #30-2014-0010
6/23/2014-UNITED STATES OF AMERICA
BUREAU OF LAND MANAGEMENT
PROPERTY # 4 960 921 135 932
SECTION-07 TOWNSHIP-20S RANGE-32E
159.43 A BEING LOT 4, SE4SW4, S2SE4
AKA S2S2 OF SEC 7
PATENT FROM BLM #30-2014-0010
6/23/2014-UNITED STATES OF AMERICA
BUREAU OF LAND MANAGEMENT
PROPERTY # 4 000 901 090 001
SECTION-18 TOWNSHIP-20S RANGE-32E
360.00 AC NE4, E2NW4, NE4SW4,
N2SE4
CAB # 520-012
* IMPRS,EQUIP,PERS PROP*

* IMPRS,EQUIP,PERS PROP*
3/2/04-MISSISSIPPI POTASH INC
B-1287 P-278

Tax Rates are expressed in Dollars per Thousand. Taxable Value is 33 1/3% of Full Value.

DISTRIBUTION	TAXABLE VALUE	TAX RATES	TAX AMOUNTS
STATE -N/R	4349951	1.360	5915.93
COUNTY -N/R	4349951	10.600	46109.48
SCHOOL -N/R	4349951	11.608	50494.23
NON-RES SUBTOTAL	4349951	23.568	102519.64
JUNIOR COLLEGE	4349951	5.000	21749.76

NON RESIDENTIAL	FULL VALUE	TAXABLE VALUE
CENTRAL	13049853	4349951
	NET ➡	4349951

RESIDENTIAL	FULL VALUE	TAXABLE VALUE
	NET ➡	

TOTAL NET VALUE OF RESIDENTIAL AND NON-RESIDENTIAL 4349951

$124,269.40 ◀TOTAL 2021 TAX DUE

PRIOR TAXES, IF ANY, MUST BE PAID BEFORE ACCEPTING CURRENT YEAR PAYMENT.

YEAR AND BILL NO.	TAX	INTEREST	PENALTY	LATE	AMOUNT DUE

THE FIRST HALF PAYMENT IS DUE: NOVEMBER 10, 2021
AND IS DELINQUENT AFTER: DECEMBER 10, 2021.

THE SECOND HALF PAYMENT IS DUE: APRIL 10, 2022
AND IS DELINQUENT AFTER: MAY 10, 2022.

PLEASE RETAIN THE ABOVE BILL FOR YOUR RECORDS

SECOND HALF PAYMENT COUPON

THIS BILL IS DUE BY APRIL 10, 2022.
TO AVOID ACCRUAL OF INTEREST AND PENALTY CHARGES,
DETACH THIS COUPON AND REMIT WITH PAYMENT BY: MAY 10, 2022.

206722

INTREPID POTASH NEW MEXICO LLC
ACCOUNTS PAYABLE %
1001 17TH ST STE 1050
DENVER CO 80202-80202

33257

PLEASE MAKE CHECKS PAYABLE TO:
SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N Main Ave Suite 3C
Lovington, NM 88260-4000

PRINT THIS BILL NO. AND OWNER NO. ON YOUR CHECK: 2021-0016842 0090109

2021 SECOND HALF: $62,134.70

YOUR CANCELLED CHECK IS YOUR RECEIPT UNLESS YOU PROVIDE US WITH A SELF-ADDRESSED STAMPED ENVELOPE FOR YOUR RETURNED RECEIPT.

You may pay online at www.leacounty.net Or Call (575) 396-8643
A nominal fee is charged for this service.

❑ PLEASE CHECK HERE AND USE THE BACK OF THIS COUPON FOR ADDRESS CHANGE.

FIRST HALF OR FULL YEAR PAYMENT COUPON

THIS BILL IS DUE BY NOVEMBER 10, 2021.
TO AVOID ACCRUAL OF INTEREST AND PENALTY CHARGES,
DETACH THIS COUPON AND REMIT WITH PAYMENT BY: DECEMBER 10, 2021.

INTREPID POTASH NEW MEXICO LLC
ACCOUNTS PAYABLE %
1001 17TH ST STE 1050
DENVER CO 80202-80202

PLEASE MAKE CHECKS PAYABLE TO
SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N Main Ave Suite 3C
Lovington, NM 88260-4000

PRINT THIS BILL NO. AND OWNER NO. ON YOUR CHECK: 2021-0016842 0090109

2021 FIRST HALF & PRIOR TAXES: *The first half includes prior taxes if any.* $62,134.70

2021 TOTAL CURRENT & PRIOR TAXES — FULL PAYMENT AMOUNT: $124,269.40

YOUR CANCELLED CHECK IS YOUR RECEIPT UNLESS YOU PROVIDE US WITH A SELF-ADDRESSED STAMPED ENVELOPE FOR YOUR RETURNED RECEIPT.

You may pay online at www.leacounty.net Or Call (575) 396-8643
A nominal fee is charged for this service.

❑ PLEASE CHECK HERE AND USE THE BACK OF THIS COUPON FOR ADDRESS CHANGE.

OWNER NAME:

2021-0016846
INTREPID POTASH-NEW MEXICO LLC
1001 17TH ST STE 1050
DENVER CO 80202-80202

2021 TAX BILL

Remit to: SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N. MAIN AVE., SUITE 3C
LOVINGTON, NEW MEXICO 88260-4000
(575) 396-8643

BILL NO. ➤ 2021-0016846

OWNER NO. ➤ 0200520

NET TAXABLE VALUES WILL BE ALLOCATED TO THE GOVERNMENTAL UNITS IN SCHOOL DISTRICT ➤ 010

Your mortgage company may be paying this bill:
However, it is the responsibility of the property owner to ensure property taxes are paid
Owners with mortgages should contact lender to determine responsibility for payment of tax.

PROPERTY # 4 000 200 520 002
SECTION-01 TOWNSHIP-17S RANGE-33E
160.00 AC LOC SW4
STATE PATENT #4004
3/2/04-EDDY POTASH INC
PROPERTY # 4 000 200 520 003
SECTION-12 TOWNSHIP-17S RANGE-33E
320.00 AC LOC W2
STATE PATENT 6-25-96 B-737 P-225
3/2/04-EDDY POTASH INC
12/28/10 - WATER RIGHTS - 1316.7 AC
COMBINED WITH UPC 4000200520004
12-17-33 - FILE #L-1880 THRU L-1884
COMB-S & L-1880 S-3/BK 1710 PG 400
PROPERTY # 4 000 200 520 004
SECTION-13 TOWNSHIP-17S RANGE-33E
480.00 AC LOC NW4, S2
3/2/04-EDDY POTASH INC
12/28/10 - WATER RIGHTS - 1316.7 AC
COMBINED WITH UPC 4000200520003
13-17-33 - FILE #L-1880 THRU L-1884
& L-1880 S-2/BK 1710 PG 400
PROPERTY # 4 000 200 520 005
SECTION-24 TOWNSHIP-17S RANGE-33E
320.00 AC BEING N2
3/2/04-EDDY POTASH INC

Tax Rates are expressed in Dollars per Thousand. Taxable Value is 33 1/3% of Full Value.

DISTRIBUTION	TAXABLE VALUE	TAX RATES	TAX AMOUNTS
STATE -N/R	24730	1.360	33.63
COUNTY -N/R	24730	10.600	262.14
SCHOOL -N/R	24730	11.720	289.84
NON-RES SUBTOTAL	24730	23.680	585.61
HOSPITAL	24730	4.000	98.92
JUNIOR COLLEGE	24730	5.000	123.65

NON RESIDENTIAL	FULL VALUE	TAXABLE VALUE
LAND	74190	24730
	NET ➡	24730

RESIDENTIAL	FULL VALUE	TAXABLE VALUE
	NET ➡	

TOTAL NET VALUE OF RESIDENTIAL AND NON-RESIDENTIAL 24730

$808.18 ◀TOTAL 2021 TAX DUE

PRIOR TAXES, IF ANY, MUST BE PAID BEFORE ACCEPTING CURRENT YEAR PAYMENT.

YEAR AND BILL NO.	TAX	INTEREST	PENALTY	LATE	AMOUNT DUE

THE FIRST HALF PAYMENT IS DUE: NOVEMBER 10, 2021
AND IS DELINQUENT AFTER: DECEMBER 10, 2021.

THE SECOND HALF PAYMENT IS DUE: APRIL 10, 2022
AND IS DELINQUENT AFTER: MAY 10, 2022.

PLEASE RETAIN THE ABOVE BILL FOR YOUR RECORDS

SECOND HALF PAYMENT COUPON

THIS BILL IS DUE BY APRIL 10, 2022.
TO AVOID ACCRUAL OF INTEREST AND PENALTY CHARGES,
DETACH THIS COUPON AND REMIT WITH PAYMENT BY: MAY 10, 2022.

PLEASE MAKE CHECKS PAYABLE TO:
SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N Main Ave Suite 3C
Lovington, NM 88260-4000

206726

INTREPID POTASH-NEW MEXICO LLC
1001 17TH ST STE 1050
DENVER CO 80202-80202

33261

PRINT THIS BILL NO. AND OWNER NO. ON YOUR CHECK: 2021-0016846 / 0200520

2021 SECOND HALF: $404.09

YOUR CANCELLED CHECK IS YOUR RECEIPT UNLESS YOU PROVIDE US WITH A SELF-ADDRESSED STAMPED ENVELOPE FOR YOUR RETURNED RECEIPT.

You may pay online at www.leacounty.net Or Call (575) 396-8643
A nominal fee is charged for this service.

MasterCard Discover VISA

❑ PLEASE CHECK HERE AND USE THE BACK OF THIS COUPON FOR ADDRESS CHANGE.

FIRST HALF OR FULL YEAR PAYMENT COUPON

THIS BILL IS DUE BY NOVEMBER 10, 2021.
TO AVOID ACCRUAL OF INTEREST AND PENALTY CHARGES,
DETACH THIS COUPON AND REMIT WITH PAYMENT BY: DECEMBER 10, 2021.

PLEASE MAKE CHECKS PAYABLE TO
SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N Main Ave Suite 3C
Lovington, NM 88260-4000

INTREPID POTASH-NEW MEXICO LLC
1001 17TH ST STE 1050
DENVER CO 80202-80202

PRINT THIS BILL NO. AND OWNER NO. ON YOUR CHECK: 2021-0016846 / 0200520

2021 FIRST HALF & PRIOR TAXES: *The first half includes prior taxes if any.* $404.09

2021 TOTAL CURRENT & PRIOR TAXES — FULL PAYMENT AMOUNT: $808.18

YOUR CANCELLED CHECK IS YOUR RECEIPT UNLESS YOU PROVIDE US WITH A SELF-ADDRESSED STAMPED ENVELOPE FOR YOUR RETURNED RECEIPT.

You may pay online at www.leacounty.net Or Call (575) 396-8643
A nominal fee is charged for this service.

MasterCard Discover VISA

❑ PLEASE CHECK HERE AND USE THE BACK OF THIS COUPON FOR ADDRESS CHANGE.

OWNER NAME:

2021-0016843
INTREPID POTASH NEW MEXICO LLC
ACCOUNTS PAYABLE %
1001 17TH ST STE 1050
DENVER CO 80202-80202

2021 TAX BILL

Remit to: SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N. MAIN AVE., SUITE 3C
LOVINGTON, NEW MEXICO 88260-4000
(575) 396-8643

BILL NO. ➤ 2021-0016843

OWNER NO. ➤ 0214979

Your mortgage company may be paying this bill:
However, it is the responsibility of the property owner to ensure property taxes are paid
Owners with mortgages should contact lender to determine responsibility for payment of tax.

NET TAXABLE VALUES WILL BE ALLOCATED TO THE GOVERNMENTAL UNITS IN SCHOOL DISTRICT ➤ 190

PROPERTY # P 021 497 921 09F 142359
CAB# 520-012
POTASH ASSESSMENT
NEW 2021

Tax Rates are expressed in Dollars per Thousand. Taxable Value is 33 1/3% of Full Value.

DISTRIBUTION	TAXABLE VALUE	TAX RATES	TAX AMOUNTS
STATE -N/R	218910	1.360	297.72
COUNTY -N/R	218910	10.600	2320.45
SCHOOL -N/R	218910	6.127	1341.26
NON-RES SUBTOTAL	218910	18.087	3959.43
HOSPITAL	218910	3.000	656.73
JUNIOR COLLEGE	218910	5.000	1094.55
			$5,710.71

NON RESIDENTIAL	FULL VALUE	TAXABLE VALUE
CENTRAL	656730	218910
NET ➡		218910

RESIDENTIAL	FULL VALUE	TAXABLE VALUE
NET ➡		

TOTAL NET VALUE OF RESIDENTIAL AND NON-RESIDENTIAL 218910

◀TOTAL 2021 TAX DUE

PRIOR TAXES, IF ANY, MUST BE PAID BEFORE ACCEPTING CURRENT YEAR PAYMENT.

YEAR AND BILL NO.	TAX	INTEREST	PENALTY	LATE	AMOUNT DUE

THE FIRST HALF PAYMENT IS DUE: NOVEMBER 10, 2021
AND IS DELINQUENT AFTER: DECEMBER 10, 2021.

THE SECOND HALF PAYMENT IS DUE: APRIL 10, 2022
AND IS DELINQUENT AFTER: MAY 10, 2022.

PLEASE RETAIN THE ABOVE BILL FOR YOUR RECORDS

SECOND HALF PAYMENT COUPON

THIS BILL IS DUE BY APRIL 10, 2022.
TO AVOID ACCRUAL OF INTEREST AND PENALTY CHARGES,
DETACH THIS COUPON AND REMIT WITH PAYMENT BY: MAY 10, 2022.

206723

INTREPID POTASH NEW MEXICO LLC
ACCOUNTS PAYABLE %
1001 17TH ST STE 1050
DENVER CO 80202-80202

33258

PLEASE MAKE CHECKS PAYABLE TO:
SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N Main Ave Suite 3C
Lovington, NM 88260-4000

PRINT THIS BILL NO. AND OWNER NO. ON YOUR CHECK: 2021-0016843 0214979

2021 SECOND HALF: $2,855.35

YOUR CANCELLED CHECK IS YOUR RECEIPT UNLESS YOU PROVIDE US WITH A SELF-ADDRESSED STAMPED ENVELOPE FOR YOUR RETURNED RECEIPT.

You may pay online at www.leacounty.net Or Call (575) 396-8643
A nominal fee is charged for this service.

❑ PLEASE CHECK HERE AND USE THE BACK OF THIS COUPON FOR ADDRESS CHANGE.

FIRST HALF OR FULL YEAR PAYMENT COUPON

THIS BILL IS DUE BY NOVEMBER 10, 2021.
TO AVOID ACCRUAL OF INTEREST AND PENALTY CHARGES,
DETACH THIS COUPON AND REMIT WITH PAYMENT BY: DECEMBER 10, 2021.

INTREPID POTASH NEW MEXICO LLC
ACCOUNTS PAYABLE %
1001 17TH ST STE 1050
DENVER CO 80202-80202

PLEASE MAKE CHECKS PAYABLE TO
SUSAN MARINOVICH
LEA COUNTY TREASURER
100 N Main Ave Suite 3C
Lovington, NM 88260-4000

PRINT THIS BILL NO. AND OWNER NO. ON YOUR CHECK: 2021-0016843 0214979

2021 FIRST HALF & PRIOR TAXES *The first half includes prior taxes if any.*: $2,855.36

2021 TOTAL CURRENT & PRIOR TAXES — FULL PAYMENT AMOUNT: $5,710.71

YOUR CANCELLED CHECK IS YOUR RECEIPT UNLESS YOU PROVIDE US WITH A SELF-ADDRESSED STAMPED ENVELOPE FOR YOUR RETURNED RECEIPT.

You may pay online at www.leacounty.net Or Call (575) 396-8643
A nominal fee is charged for this service.

❑ PLEASE CHECK HERE AND USE THE BACK OF THIS COUPON FOR ADDRESS CHANGE.

Section 9

Proof of Public Notice

Item 4 & 5

Sample of the Letters Sent to Owners of Record, Counties, and Municipalities

Intrepid Potash – New Mexico, LLC
Post Office Box 101
Carlsbad, NM 88221
575.234.3881

CERTIFIED MAIL – RETURN RECEIPT REQUESTED
XXXX

November 10, 2021

Dear [Neighbor/Environmental Director/county or municipal official]:

Intrepid Potash – New Mexico, LLC announces its application to the New Mexico Environment Department for an air quality permit for the modification of its North Compaction Plant. The expected date of application submittal to the Air Quality Bureau is December 9, 2021.

The exact location for the existing and proposed facility known as, Intrepid Potash North Compaction Plant, is 484 N. State Highway 243, Carlsbad New Mexico in Lea County. The approximate location of this facility is 28.0 miles east of Carlsbad along Highway 62/180, approximately 28 miles then turn left (North) onto Highway 243. North Plant will be approximately 3 miles ahead.

The proposed modification consists of the addition of portable non-road engines to the facility permit, add a white standard potash system consisting of a bucket elevator, screens, conveyor transfer and reject material truck loading, and to widen the public road buffer zone.

The estimated maximum quantities of any regulated air contaminants will be as follows in pound per hour (pph) and tons per year (tpy). These reported emissions could change slightly during the course of the Department's review:

Pollutant:	Pounds per hour	Tons per year
Particulate Matter (PM)	41.0	179.6
PM_{10}	32.0	140.0
$PM_{2.5}$	29.0	127.0
Sulfur Dioxide (SO_2)	2.5	11.0
Nitrogen Oxides (NO_x)	18.3	80.0
Carbon Monoxide (CO)	31.5	138.0
Volatile Organic Compounds (VOC)	3.4	15.0
Total sum of all Hazardous Air Pollutants (HAPs)	< 0.5	1.5
Toxic Air Pollutant (TAP)	< 0.5	1.5
Green House Gas Emissions as Total CO_2e	n/a	< 75,000 tpy

The standard and maximum operating schedules of the facility will be from 12:00 a.m. to 11:59 p.m. 7 days a week and a maximum of 52 weeks per year.

The owner and/or operator of the Facility is: Intrepid Potash – New Mexico, LLC with address of 484 N. State Highway 243, Carlsbad New Mexico 88220.

If you have any comments about the construction or operation of this facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to this address: Permit Programs Manager; New Mexico Environment Department; Air Quality Bureau; 525 Camino de los Marquez, Suite 1; Santa Fe, New Mexico; 87505-1816; (505) 476-4300; 1 800 224-7009; https://www.env.nm.gov/aqb/permit/aqb_draft_permits.html. Other comments and questions may be submitted verbally.

With your comments, please refer to the company name and facility name, or send a copy of this notice along with your comments. This information is necessary since the Department may have not yet received the permit application. Please include a legible return mailing address. Once the Department has completed its preliminary review of the application and its air quality impacts, the Department's notice will be published in the legal section of a newspaper circulated near the facility location.

Attención

Este es un aviso de la oficina de Calidad del Aire del Departamento del Medio Ambiente de Nuevo México, acerca de las emisiones producidas por un establecimiento en esta área. Si usted desea información en español, por favor comuníquese con esa oficina al teléfono 505-476-5557.

Sincerely,

Ken Faulkner
Environmental Manager
Intrepid Potash – New Mexico, LLC
P.O. Box 101, Carlsbad, NM 88221

Notice of Non-Discrimination

NMED does not discriminate on the basis of race, color, national origin, disability, age or sex in the administration of its programs or activities, as required by applicable laws and regulations. NMED is responsible for coordination of compliance efforts and receipt of inquiries concerning non-discrimination requirements implemented by 40 C.F.R. Part 7, including Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and Section 13 of the Federal Water Pollution Control Act Amendments of 1972. If you have any questions about this notice or any of NMED's non-discrimination programs, policies or procedures, or if you believe that you have been discriminated against with respect to a NMED program or activity, you may contact: Kathryn Becker, Non-Discrimination Coordinator, NMED, 1190 St. Francis Dr., Suite N4050, P.O. Box 5469, Santa Fe, NM 87502, (505) 827-2855, nd.coordinator@state.nm.us. You may also visit our website at https://www.env.nm.gov/non-employee-discrimination-complaint-page/ to learn how and where to file a complaint of discrimination.

Section 9

Proof of Public Notice

Item 6

Sample of Public Notice Posted, and Verification of Local Postings

NOTICE

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General Posting of Notices – Certification

I, ROBIN HUGHES, the undersigned, certify that on **the dates listed,** I posted a true and correct copy of the attached Public Notice in the following publicly accessible and conspicuous places in City of **Hobbs, Lea** County, State of New Mexico on the following dates:

1. Hobbs City Hall, 200 E Broadway St. in Hobbs, NM 11/19/2021
2. Hobbs Public Library, 509 N. Shipp St. in Hobbs, NM 11/19/2021
3. La Tienda, 420 E. Marland St. in Hobbs, NM 11/19/2021

Signed this 19th day of NOVEMBER, 2021.

Robin Hughes
Signature

11/19/2021
Date

ROBIN HUGHES
Printed Name

ENVIRONMENTAL TECHNICIAN III
Title

General Posting of Notices – Certification

I, Rick Owens, the undersigned, certify that on **the date listed,** I posted a true and correct copy of the attached Public Notice in the following publicly accessible and conspicuous places in **Lea** County, State of New Mexico on the following dates:

1. North Plant, Front Entrance 12/01/2021

Signed this 1st day of December, 2021.

Rick D. Owens
Signature

12/1/21
Date

Rick Owens
Printed Name

Environmental Technician II
Title

North Plant NSR Significant Revision Public Notice Posted at Front Entrance to Plant 12/1/2021

Section 9

Proof of Public Notice

Item 7

List of Notified People

LIST OF NOTIFIED PEOPLE

NORTH PLANT NSR PERMIT 321

SIGNIFICANT REVISION

PUBLIC NOTICE LETTERS

Addressee	**Date of Certified Mail Posting**
Hobbs City Hall 200 E. Broadway Hobbs, NM 88240	November 29, 2021
Lea County Clerk's Office PO Box 1507 Lovington, NM 88260	November 29, 2021
BLM CBFO 620 E. Greene St. Carlsbad, NM 88220	November 29, 2021

Section 9

Proof of Public Notice

Item 8

Copy of Public Service Announcement Documentary Proof of Submittal Submittal of Public Service Announcement – Certification

PUBLIC SERVICE ANNOUNCEMENT

Intrepid Potash Notice of Application for Significant Revision of Air Quality Permit

Intrepid Potash – New Mexico, LLC announces its application to the New Mexico Environment Department for an air quality permit for the modification of its North Compaction Plant NSR Permit No. 0321-M7. The proposed modification consists of the addition of portable non-road engines to the facility permit, add a white standard potash system consisting of a bucket elevator, screens, conveyor transfer and reject material truck loading, and to widen the public road buffer zone.

The North Compaction Plant is located at 484 N. State Highway 243, approximately 28 miles east-northeast of Carlsbad, NM, and 3 miles north of Highway 62/180 in Lea County.

The proposed modification consists of the addition of portable non-road engines to the facility permit, add a white standard potash system consisting of a bucket elevator, screens, conveyor transfer and reject material truck loading, and to widen the public road buffer zone.

Intrepid has posted complete notices containing the locations of the facilities and describing the proposed modification at the following locations:

- Intrepid Potash North Plant Entrance
- Hobbs City Hall at 200 East Broadway Street in Hobbs
- Hobbs Public Library at 509 North Shipp Street in Hobbs
- La Tienda at 420 East Marland Street in Hobbs

If you have any comments about this proposed modification and you want your comments to be made as part of the permit review process, you must submit your comments in writing to:

Permit Programs Manager
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, New Mexico; 87505-1816

The Department may be contacted by telephone at (505) 476-4300 or 1 800 224-7009.

Attención
Este es un aviso de la oficina de Calidad del Aire del Departamento del Medio Ambiente de Nuevo México, acerca de las emisiones producidas por un establecimiento en esta área. Si usted desea información en español, por favor comuníquese con esa oficina al teléfono 505-476-5557.

Notice of Non-Discrimination
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PSA Proof of Submittal

From: aaron
To: Robin Hughes
Subject: RE: Request for PSA to Air on Friday 11-19-2021 for Intrepid North NSR Permit
Date: Monday, November 15, 2021 5:03:30 PM
Attachments: image001.png
CREDIT CARD FORM.docx

Hi Robin,

Yes, we can accommodate the request.

The fee for this will be: $225.00 ($75 per announcement per station). Credit Card Authorization is attached. Thank you!

Aaron Forrister, CRMC
New Mexico Market Manager
KZOR-KIXN-KPZA-KEJL-KLEA-KBIM-KKBE
575-318-7217 mobile
575-397-4969 office
575-393-4310 fax
619 North Turner
Hobbs, NM 88240

From: Robin Hughes <robin.hughes@intrepidpotash.com>
Sent: Monday, November 15, 2021 4:17 PM
To: aaron@1radiosquare.com
Subject: Request for PSA to Air on Friday 11-19-2021 for Intrepid North NSR Permit

Aaron,

I am requesting a Public Service Announcement to air around noon on Friday, November 19, 2021, for

a 2 minute announcement aired once on each station. KIX, KZOR and KPZA.
Attached is the PSA for NSR Permit for North Significant Revision.

Can I get a copy of the schedule and invoice to add to our permit application?

Please contact me if you have any questions concerning this request.

Thank you for your help.

Robin Hughes
Environmental Technician III
INTREPID
210 Red Cloud Road
Carlsbad, NM 88220
575-941-2212
robin.hughes@intrepidpotash.com

Submittal of Public Service Announcement – Certification

I, ROBIN HUGHES, the undersigned, certify that on **November 16, 2021**, I submitted a public service announcement to **Hobbs Radio** that serves the City of **Hobbs**, **Lea** County, New Mexico, in which the source is located and that **Hobbs Radio RESPONDED THAT IT WOULD AIR THE ANNOUNCEMENT.**

Signed this 17th day of NOVEMBER, 2021.

Robin Hughes
Signature

11/17/2021
Date

ROBIN HUGHES
Printed Name

ENVIRONMENTAL TECHNICIAN III
Title

Section 9

Proof of Public Notice

Item 9 & 10

Copy of Legal Ad & Copy of Display Ad

Hobbs News Sun 11-21-2021

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
November 21, 2021
and ending with the issue dated
November 21, 2021.

Publisher

Sworn and subscribed to before me this
21st day of November 2021.

Business Manager

My commission expires
January 29, 2023
Seal

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-23

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL NOTICE
November 21, 2021

NOTICE OF AIR QUALITY PERMIT APPLICATION

Intrepid Potash – New Mexico, LLC announces its application to the New Mexico Environment Department for an air quality permit for the modification of its North Compaction Plant. The expected date of application submittal to the Air Quality Bureau is December 9, 2021.

The exact location for the existing and proposed facility known as, Intrepid Potash North Compaction Plant, is 484 N. State Highway 243, Carlsbad New Mexico in Lea County. The approximate location of this facility is 28.0 miles east of Carlsbad along Highway 62/180, approximately 28 miles then turn left (North) onto Highway 243. North Plant will be approximately 3 miles ahead.

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Nitrogen Oxides (NOx)	18.3	80.0
Carbon Monoxide (CO)	31.5	138.0
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Total sum of all Hazardous Air Pollutants (HAPs)	< 0.5	1.5
Toxic Air Pollutant (TAP)	< 0.5	1.5
Green House Gas Emissions as Total CO2e	n/a	< 75,000 tpy

The standard and maximum operating schedules of the facility will be from 12:00 a.m. to 11:59 p.m. 7 days a week and a maximum of 52 weeks per year.
The owner and/or operator of the Facility is: Intrepid Potash – New Mexico, LLC with address of 484 N. State Highway 243, Carlsbad New Mexico 88220.
If you have any comments about the construction or operation of this facility, and you want your comments to be made as part of the permit review process, you must submit your comments in writing to this address: Permit Programs Manager; New Mexico Environment Department; Air Quality Bureau; 525 Camino de los Marquez, Suite 1; Santa Fe, New Mexico; 87505-1816; (505) 476-4300; 1 800 224-7009; https://www.env.nm.gov/aqb/permit/aqb_draft_permits.html. Other comments and questions may be submitted verbally.
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#37052

01102032 00260914

ROBIN HUGHES
INTREPID POTASH, INC.
P.O. BOX 101
1996 POTASH MINES RD.
CARLSBAD, NM 88220

Hobbs News Sun Public Notice Display Ad 11-21-2021

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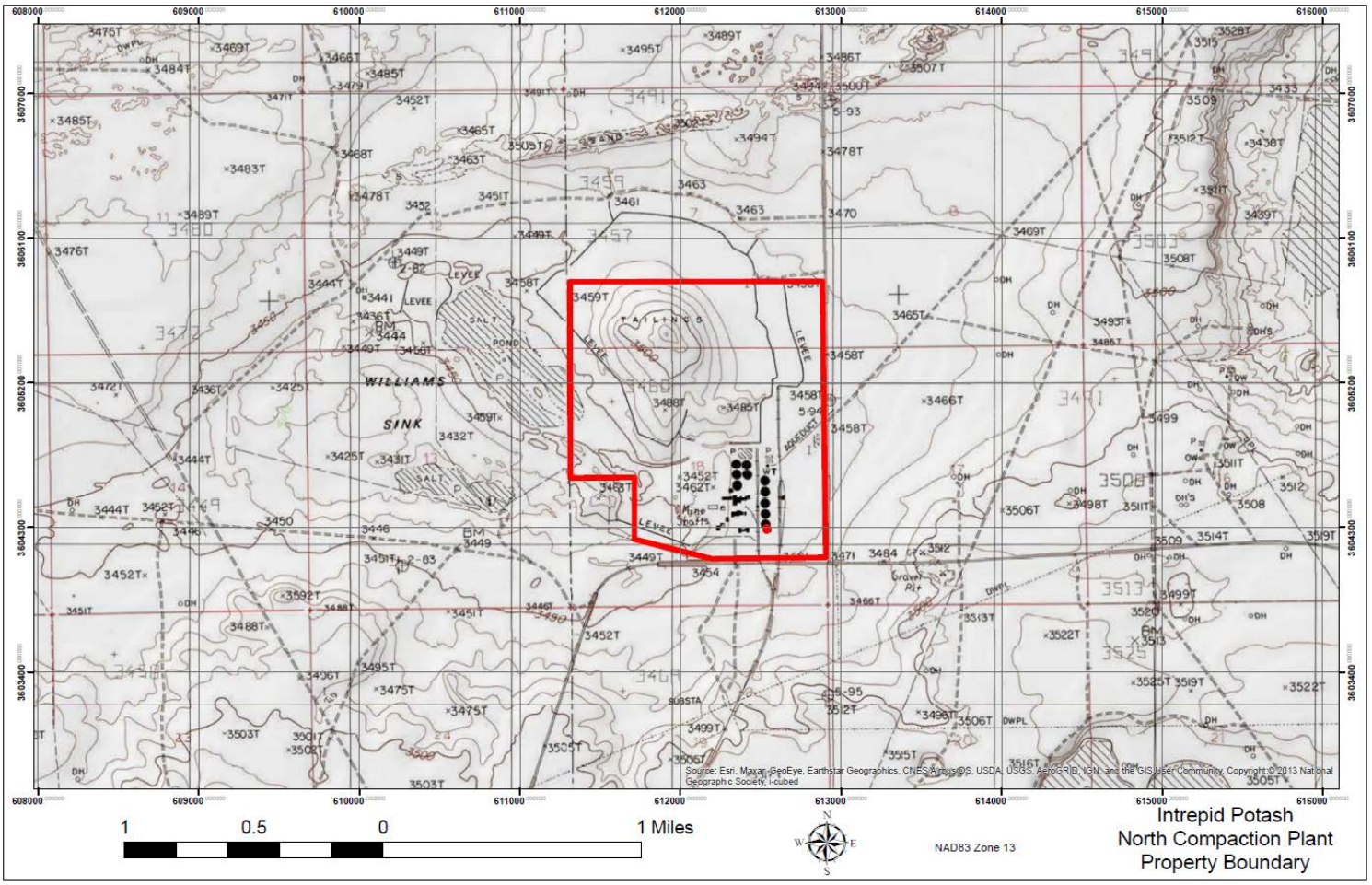
Section 9

Proof of Public Notice

Item.11

Map Showing Facility & Surrounding Area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Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Copyright © 2013 National Geographic Society, i-cubed
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S
NAD83 Zone 13
Intrepid Potash
North Compaction Plant
Property Boundary

Section 10

Written Description of the Routine Operations of the Facility

---

A written description of the routine operations of the facility. Include a description of how each piece of equipment will be operated, how controls will be used, and the fate of both the products and waste generated. For modifications and/or revisions, explain how the changes will affect the existing process. In a separate paragraph describe the major process bottlenecks that limit production. The purpose of this description is to provide sufficient information about plant operations for the permit writer to determine appropriate emission sources.

Potash is transported to North Plant for compaction, sizing, and sales to third party customers by truck or rail. Currently, white standard potash product (HS) product is stored in North Domes 1 and 2. Loading this product into rail cars and trucks through the Safe Feed Safe Food (SFSF) Loadout system requires transporting HS product from Domes 1 and 2 by wheel loader to an outdoor portable screening unit located near existing conveyor CV300-01 (to ensure product sent to the SFSF Loadout meets required size specifications). The screened product is transported from the screen by portable conveyor onto conveyor CV300-01 which feeds the SFSF loadout 100-ton and 300-ton product loading bins.

IPNM is proposing to eliminate the wheel loader and the portable screening/conveying system by locating HS product in Domes 1 and 2 and installing a new, permanent, mechanical system within a new structure that discharges onto CV300-01. The new structure is to be located between Dome 1 and the existing CV300-01 conveyor and is to be fully enclosed to protect product from the weather. A dust collection system will be installed for the transfer points.

Approximately 70,000 tons of HS product are loaded out each year. This new mechanical system is to normally operate at 100 tons per hour (tph). Design throughput is to be for 125 tph.

Currently, a single conveyor belt, 20 conveyor, services, and transports material from Domes 1, 2, and 3, to the north, for loadout through the existing EG system. This project will split the 20 conveyors between Domes 2 and 3. The existing 20 conveyor drive is located at the north end of Dome 3 and will be used for the shortened 20 conveyor. The conveyor under Domes 1 and 2 will be called the 20S conveyor. The new drive for the 20S conveyor will be located at the south end of the conveyor.

There is tunnel access for the existing 20 conveyor located at the south end of Dome 1. IPNM proposes to extend the 20S conveyor into this access area where it would discharge into a new bucket elevator that would feed the equipment in the new structure. The new bucket elevator will feed material through a diverter valve onto vibratory screens or into a chute bypassing the screens. All products will be screened, bypass of the screens to the rejects bin may occur to clear the system of residual material. Screen oversize material will report into a 50-ton rejects bin that would be emptied as needed via dump truck. Screen undersize material will report onto the CV300-01 conveyor.

On occasion nonroad engines are necessary to meet various project needs around the facility.

Section 11
Source Determination

Source submitting under 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC

Sources applying for a construction permit, PSD permit, or operating permit shall evaluate surrounding and/or associated sources (including those sources directly connected to this source for business reasons) and complete this section. Responses to the following questions shall be consistent with the Air Quality Bureau's permitting guidance, Single Source Determination Guidance, which may be found on the Applications Page in the Permitting Section of the Air Quality Bureau website.

Typically, buildings, structures, installations, or facilities that have the same SIC code, that are under common ownership or control, and that are contiguous or adjacent constitute a single stationary source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes. Submission of your analysis of these factors in support of the responses below is optional, unless requested by NMED.

A. Identify the emission sources evaluated in this section (list and describe)**:**

B. Apply the 3 criteria for determining a single source:

SIC Code: Surrounding or associated sources belong to the same 2-digit industrial grouping (2-digit SIC code) as this facility, OR surrounding or associated sources that belong to different 2-digit SIC codes are support facilities for this source.

☒ **Yes** ☐ **No**

Common Ownership or Control: Surrounding or associated sources are under common ownership or control as this source.

☒ **Yes** ☐ **No**

Contiguous or Adjacent: Surrounding or associated sources are contiguous or adjacent with this source.

☒ **Yes** ☐ **No**

C. Make a determination:

☒ The source, as described in this application, constitutes the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes. If in "A" above you evaluated only the source that is the subject of this application, all "**YES**" boxes should be checked. If in "A" above you evaluated other sources as well, you must check **AT LEAST ONE** of the boxes "**NO**" to conclude that the source, as described in the application, is the entire source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes.

The Source for PSD and Title V purposes consists of the West, HB and North Plants. All three plants when considered together are not a PSD major source, but are considered a major source for Title V purposes.

☐ The source, as described in this application, **does not** constitute the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes (A permit may be issued for a portion of a source). The entire source consists of the following facilities or emissions sources (list and describe):

Section 12

Section 12.A
PSD Applicability Determination for All Sources

(Submitting under 20.2.72, 20.2.74 NMAC)

A PSD applicability determination for all sources. For sources applying for a significant permit revision, apply the applicable requirements of 20.2.74.AG and 20.2.74.200 NMAC and to determine whether this facility is a major or minor PSD source, and whether this modification is a major or a minor PSD modification. It may be helpful to refer to the procedures for Determining the Net Emissions Change at a Source as specified by Table A-5 (Page A.45) of the EPA New Source Review Workshop Manual to determine if the revision is subject to PSD review.

A. This facility is:

- ☒ **a minor PSD source before and after this modification (if so, delete C and D below).**
- ☐ **a major PSD source before this modification. This modification will make this a PSD minor source.**
- ☐ **an existing PSD Major Source that has never had a major modification requiring a BACT analysis.**
- ☐ **an existing PSD Major Source that has had a major modification requiring a BACT analysis**
- ☐ **a new PSD Major Source after this modification.**

B. **This facility is not one of the listed 20.2.74.501 Table I – PSD Source Categories. The "project" emissions** for this modification are **not significant. The facility is a minor PSD source and the project emission increases are less than the major source threshold. The "project" emissions listed below do only result from changes described in this permit application, thus no emissions from other revisions or modifications, past or future] to this facility. Also, specifically discuss whether this project results in "de-bottlenecking", or other associated emissions resulting in higher emissions. The project emissions (before netting) for this project are as follows [see Table 2 in 20.2.74.502 NMAC for a complete list of significance levels]:**

a. **NOx: 54.0 TPY**
b. **CO: 57.3 TPY**
c. **VOC: 11.0 TPY**
d. **SOx: 9.0 TPY**
e. **PM: 20.9 TPY**
f. **PM10: 18.1 TPY**
g. **PM2.5: 15.29 TPY**
h. **Fluorides: 0 TPY**
i. **Lead: 0 TPY**
j. **Sulfur compounds (listed in Table 2): 0 TPY**
k. **GHG: 5,037 TPY**

C. **Netting is not required; the project is not significant.**

D. **BACT** is **not required for this modification, as this application is a minor modification.**

E. If this is an existing PSD major source, or any facility with emissions greater than 250 TPY (or 100 TPY for 20.2.74.501 Table 1 – PSD Source Categories), determine whether any permit modifications are related, or could be considered a single project with this action, and provide an explanation for your determination whether a PSD modification is triggered.

Section 13

Determination of State & Federal Air Quality Regulations

This section lists each state and federal air quality regulation that may apply to your facility and/or equipment that are stationary sources of regulated air pollutants.

Not all state and federal air quality regulations are included in this list. Go to the Code of Federal Regulations (CFR) or to the Air Quality Bureau's regulation page to see the full set of air quality regulations.

Required Information for Specific Equipment:
For regulations that apply to specific source types, in the 'Justification' column **provide any information needed to determine if the regulation does or does not apply**. **For example**, to determine if emissions standards at 40 CFR 60, Subpart IIII apply to your three identical stationary engines, we need to know the construction date as defined in that regulation; the manufacturer date; the date of reconstruction or modification, if any; if they are or are not fire pump engines; if they are or are not emergency engines as defined in that regulation; their site ratings; and the cylinder displacement.

Required Information for Regulations that Apply to the Entire Facility:
See instructions in the 'Justification' column for the information that is needed to determine if an 'Entire Facility' type of regulation applies (e.g. 20.2.70 or 20.2.73 NMAC).

Regulatory Citations for Regulations That Do Not, but Could Apply:
If there is a state or federal air quality regulation that does not apply, but you have a piece of equipment in a source category for which a regulation has been promulgated, you must **provide the low level regulatory citation showing why your piece of equipment is not subject to or exempt from the regulation. For example** if you have a stationary internal combustion engine that is not subject to 40 CFR 63, Subpart ZZZZ because it is an existing 2 stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, your citation would be 40 CFR 63.6590(b)(3)(i). **We don't want a discussion of every non-applicable regulation, but if it is possible a regulation could apply, explain why it does not. For example,** if your facility is a power plant, you do not need to include a citation to show that 40 CFR 60, Subpart OOO does not apply to your non-existent rock crusher.

Regulatory Citations for Emission Standards:
For each unit that is subject to an emission standard in a source specific regulation, such as 40 CFR 60, Subpart OOO or 40 CFR 63, Subpart HH, include the low level regulatory citation of that emission standard. Emission standards can be numerical emission limits, work practice standards, or other requirements such as maintenance. **Here are examples:** a glycol dehydrator is subject to the general standards at 63.764C(1)(i) through (iii); an engine is subject to 63.6601, Tables 2a and 2b; a crusher is subject to 60.672(b), Table 3 and all transfer points are subject to 60.672(e)(1)

Federally Enforceable Conditions:
All federal regulations are federally enforceable. All Air Quality Bureau State regulations are federally enforceable except for the following: affirmative defense portions at 20.2.7.6.B, 20.2.7.110(B)(15), 20.2.7.11 through 20.2.7.113, 20.2.7.115, and 20.2.7.116; 20.2.37; 20.2.42; 20.2.43; 20.2.62; 20.2.63; 20.2.86; 20.2.89; and 20.2.90 NMAC. Federally enforceable means that EPA can enforce the regulation as well as the Air Quality Bureau and federally enforceable regulations can count toward determining a facility's potential to emit (PTE) for the Title V, PSD, and nonattainment permit regulations.

INCLUDE ANY OTHER INFORMATION NEEDED TO COMPLETE AN APPLICABILITY DETERMINATION OR THAT IS RELEVENT TO YOUR FACILITY'S NOTICE OF INTENT OR PERMIT.

EPA Applicability Determination Index for 40 CFR 60, 61, 63, etc: http://cfpub.epa.gov/adi/

To save paper and to standardize the application format, delete this sentence, and begin your submittal for this attachment on this page.

Example of a Table for STATE REGULATIONS:

STATE REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.1 NMAC	General Provisions	Yes	Facility	General Provisions apply to Notice of Intent, Construction, and Title V permit applications.
20.2.3 NMAC	Ambient Air Quality Standards NMAAQS	Yes	N-EP-04, N-EP-05, N-EP-08, N-EP-09	If subject, this would normally apply to the entire facility. 20.2.3 NMAC is a State Implementation Plan (SIP) approved regulation that limits the maximum allowable concentration of, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide. The TSP NM ambient air quality standard was repealed by the EIB effective November 30, 2018.
20.2.7 NMAC	Excess Emissions	Yes	Facility	Applies to the entire facility.
20.2.23 NMAC	Fugitive Dust Control	No	Facility	Sources exempt from 20.2.23 NMAC are activities and facilities subject to a permit issued pursuant to the NM Air Quality Control Act, the Mining Act, or the Surface Mining Act (20.2.23.108.B NMAC.
20.2.33 NMAC	Gas Burning Equipment - Nitrogen Dioxide	No	Facility	**Facility sources do not have gas burning equipment with heat input of greater than 1,000,000 million British Thermal Units per year per unit**.
20.2.34 NMAC	Oil Burning Equipment: NO_2	No	Facility	**Facility sources do not have oil burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit.**
20.2.35 NMAC	Natural Gas Processing Plant – Sulfur	No	Facility	This facility does not have natural gas processing plants that use a Sulfur Recovery Unit to reduce sulfur emissions.
20.2.37 and 20.2.36 NMAC	Petroleum Processing Facilities and Petroleum Refineries	N/A	N/A	**These regulations were repealed by the Environmental Improvement Board. If you had equipment subject to 20.2.37 NMAC before the repeal, your combustion emission sources are now subject to 20.2.61 NMAC.**
20.2.38 NMAC	Hydrocarbon Storage Facility	No	Facility	Facility units do not contain storage tanks that meet the criteria of the referenced regulation.
20.2.39 NMAC	Sulfur Recovery Plant - Sulfur	No	Facility	Facility does not contain any affected equipment or activity referenced by this regulation.
20.2.61.109 NMAC	Smoke & Visible Emissions	No	N-EP-04, N-EP-05, N-EP-08, N-EP-09	The project does not include stationary combustion units.
20.2.70 NMAC	Operating Permits	Yes	Facility	Facility's potential to emit (PTE) exceeds 100 tpy or more of any regulated air pollutant other than HAPs.
20.2.71 NMAC	Operating Permit Fees	Yes	Facility	Facility is subject to operating permit fees.
20.2.72 NMAC	Construction Permits	Yes	N-EP-04, N-EP-05, N-EP-08, N-EP-09	Facility's potential emission rate (PER) is greater than 10 pph or greater than 25 tpy for any pollutant subject to a state or federal ambient air quality standard (does not include VOCs or HAPs).
20.2.73 NMAC	NOI & Emissions Inventory Requirements	Yes	Facility	Facility is permitted for greater than 10 tpy of TSP, PM10, PM2.5, nitrogen oxides, and carbon monoxide; and is subject to emissions inventories.

STATE REGU-LATIONS CITATION	Title	Applies? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.74 NMAC	Permits – Prevention of Significant Deterioration (PSD)	No	Facility	Facility does not meet criteria for PSD major source.
20.2.75 NMAC	Construction Permit Fees	Yes	Facility	Facility is subject to construction permit fees.
20.2.77 NMAC	New Source Performance	Yes	N-FWPE	Only existing N-FWPE is subject to a NSPS. Proposed engine(s) (N-EP-09) is portable non-road engine. Portable or transportable (has wheels, skids, carrying handles, dolly, trailer or platform) engines are not covered by NSPS, i.e., nonroad engine as defined at 40 CFR 1068.30 are not stationary sources.
20.2.78 NMAC	Emission Standards for HAPS	No	Facility	The facility does not have equipment subject to the referenced regulation.
20.2.79 NMAC	Permits – Nonattainment Areas	No	Facility	Facility is not located in a Non-Attainment Area.
20.2.80 NMAC	Stack Heights	No	Facility	The facility does not have equipment subject to the referenced regulation.
20.2.82 NMAC	MACT Standards for source categories of HAPS	No	Facility	The facility does not have equipment subject to the referenced regulation.

Example of a Table for Applicable FEDERAL REGULATIONS (Note: This is not an exhaustive list):

FEDERAL REGU-LATIONS CITATION	Title	Applies ? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 50	NAAQS	Yes	Facility	If subject, this would normally apply to the entire facility. This applies if you are subject to 20.2.70, 20.2.72, 20.2.74, and/or 20.2.79 NMAC.
NSPS 40 CFR 60, Subpart A	General Provisions	Yes	N-FWPE	Applies if any other Subpart in 40 CFR 60 applies. Only existing N-FWPE is subject to a NSPS. Proposed engine(s) (N-EP-09) is portable non-road engine. Portable or transportable (has wheels, skids, carrying handles, dolly, trailer or platform) engines are not covered by NSPS, i.e., nonroad engine as defined at 40 CFR 1068.30 are not stationary sources.
NSPS 40 CFR60.40a, Subpart Da	Subpart Da, Performance Standards for **Electric Utility Steam Generating Units**	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR60.40b Subpart Db	**Electric Utility Steam Generating Units**	No	Facility	Facility does not contain equipment subject to referenced regulation.

FEDERAL REGU-LATIONS CITATION	Title	Applies ? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 60.40c, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR 60, Subpart Ka	Standards of Performance for **Storage Vessels for Petroleum Liquids** for which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and **Prior** to July 23, 1984	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR 60, Subpart Kb	Standards of Performance for **Volatile Organic Liquid Storage Vessels** (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced **After** July 23, 1984	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR 60.330 Subpart GG	**Stationary Gas Turbines**	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR 60, Subpart KKK	Leaks of VOC from **Onshore Gas Plants**	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR Part 60 Subpart LLL	Standards of Performance for **Onshore Natural Gas Processing**: SO_2 Emissions	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR Part 60 Subpart OOOO	Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution for which construction, modification or reconstruction commenced after August 23, 2011 and before September 18, 2015	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR Part 60 Subpart OOOOa	Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR 60 Subpart IIII	Standards of performance for Stationary Compression Ignition Internal Combustion Engines	Yes	N-FWPE	Only existing N-FWPE is subject to a NSPS. Proposed engine(s) (N-EP-09) is portable non-road engine. Portable or transportable (has wheels, skids, carrying handles, dolly, trailer or platform) engines are not covered by NSPS, i.e., nonroad engine as defined at 40 CFR 1068.30 are not stationary sources.
NSPS 40 CFR Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	No	Facility	Facility does not contain equipment subject to referenced regulation.

FEDERAL REGU-LATIONS CITATION	Title	Applies ? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
NSPS 40 CFR 60 Subpart TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR 60 Subpart UUUU	Emissions Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units	No	Facility	Facility does not contain equipment subject to referenced regulation.
NSPS 40 CFR 60, Subparts WWW, XXX, Cc, and Cf	Standards of performance for Municipal Solid Waste (MSW) Landfills	No	Facility	Facility does not contain equipment subject to referenced regulation.
NESHAP 40 CFR 61 Subpart A	General Provisions	No	Facility	Facility does not contain equipment subject to referenced regulation.
NESHAP 40 CFR 61 Subpart E	National Emission Standards for **Mercury**	No	Facility	Facility does not contain equipment subject to referenced regulation.
NESHAP 40 CFR 61 Subpart V	National Emission Standards for **Equipment Leaks** (Fugitive Emission Sources)	No	Facility	Facility does not contain equipment subject to referenced regulation.
MACT 40 CFR 63, Subpart A	General Provisions	No	Facility	Facility does not contain equipment subject to referenced regulation.
MACT 40 CFR 63.760 Subpart HH	**Oil and Natural Gas Production Facilities**	No	Facility	Facility does not contain equipment subject to referenced regulation.
MACT 40 CFR 63 Subpart HHH		No	Facility	Facility does not contain equipment subject to referenced regulation.
MACT 40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Industrial, Commercial, and Institutional Boilers & Process Heaters	No	Facility	Facility does not contain equipment subject to referenced regulation.
MACT 40 CFR 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants Coal & Oil Fire Electric Utility Steam Generating Unit	No	Facility	Facility does not contain equipment subject to referenced regulation.
MACT 40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (**RICE MACT**)	Yes	N-FWPE	Only existing N-FWPE is subject to a NSPS. Proposed engine(s) (N-EP-09) is portable non-road engine. Portable or transportable (has wheels, skids, carrying handles, dolly, trailer or platform) engines are not covered by NSPS, i.e., nonroad engine as defined at 40 CFR 1068.30 are not stationary sources.
40 CFR 64	**Compliance Assurance Monitoring**	Yes	N-EP-01, N-EP-02, N-EP-03, N-EP-07	**Uncontrolled Emissions for proposed N-EP-08 are less than the major source threshold and CAM does not apply.**

FEDERAL REGU-LATIONS CITATION	Title	Applies ? Enter Yes or No	Unit(s) or Facility	JUSTIFICATION:
40 CFR 68	**Chemical Accident Prevention**	No	N/A	Facility does not contain equipment subject to referenced regulation
Title IV – Acid Rain 40 CFR 72	**Acid Rain**	No	N/A	Facility does not contain equipment subject to referenced regulation
Title IV – Acid Rain 40 CFR 73	**Sulfur Dioxide** Allowance Emissions	No	N/A	Facility does not contain equipment subject to referenced regulation
Title IV-Acid Rain 40 CFR 75	**Continuous Emissions Monitoring**	No	N/A	Facility does not contain continuous emissions monitoring
Title IV – Acid Rain 40 CFR 76	**Acid Rain** Nitrogen Oxides **Emission Reduction Program**	No	N/A	Facility does not contain equipment subject to referenced regulation.
Title VI – 40 CFR 82	Protection of **Stratospheric Ozone**	No	N/A	Facility does not contain equipment subject to referenced regulation.

Section 14

Operational Plan to Mitigate Emissions

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

☒ **Title V Sources** (20.2.70 NMAC)**:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Emissions During Startups, Shutdowns, and Emergencies** defining the measures to be taken to mitigate source emissions during startups, shutdowns, and emergencies as required by 20.2.70.300.D.5(f) and (g) NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☐ **NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Source Emissions During Malfunction, Startup, or Shutdown** defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown as required by 20.2.72.203.A.5 NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☒ **Title V** (20.2.70 NMAC)**, NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has established and implemented a Plan to Minimize Emissions During Routine or Predictable Startup, Shutdown, and Scheduled Maintenance through work practice standards and good air pollution control practices as required by 20.2.7.14.A and B NMAC. This plan shall be kept on site or at the nearest field office to be made available to the Department upon request. This plan should not be submitted with this application.

Section 15

Alternative Operating Scenarios

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

Alternative Operating Scenarios: Provide all information required by the department to define alternative operating scenarios. This includes process, material and product changes; facility emissions information; air pollution control equipment requirements; any applicable requirements; monitoring, recordkeeping, and reporting requirements; and compliance certification requirements. Please ensure applicable Tables in this application are clearly marked to show alternative operating scenario.

Construction Scenarios: When a permit is modified authorizing new construction to an existing facility, NMED includes a condition to clearly address which permit condition(s) (from the previous permit and the new permit) govern during the interval between the date of issuance of the modification permit and the completion of construction of the modification(s). There are many possible variables that need to be addressed such as: Is simultaneous operation of the old and new units permitted and, if so for example, for how long and under what restraints? In general, these types of requirements will be addressed in Section A100 of the permit, but additional requirements may be added elsewhere. Look in A100 of our NSR and/or TV permit template for sample language dealing with these requirements. Find these permit templates at: https://www.env.nm.gov/aqb/permit/aqb_pol.html. Compliance with standards must be maintained during construction, which should not usually be a problem unless simultaneous operation of old and new equipment is requested.

In this section, under the bolded title “Construction Scenarios”, specify any information necessary to write these conditions, such as: conservative-realistic estimated time for completion of construction of the various units, whether simultaneous operation of old and new units is being requested (and, if so, modeled), whether the old units will be removed or decommissioned, any PSD ramifications, any temporary limits requested during phased construction, whether any increase in emissions is being requested as SSM emissions or will instead be handled as a separate Construction Scenario (with corresponding emission limits and conditions, etc.

No new, additional alternative operating scenarios are applicable

Section 16

Air Dispersion Modeling

1) Minor Source Construction (20.2.72 NMAC) and Prevention of Significant Deterioration (PSD) (20.2.74 NMAC) ambient impact analysis (modeling): Provide an ambient impact analysis as required at 20.2.72.203.A(4) and/or 20.2.74.303 NMAC and as outlined in the Air Quality Bureau's Dispersion Modeling Guidelines found on the Planning Section's modeling website. If air dispersion modeling has been waived for one or more pollutants, attach the AQB Modeling Section modeling waiver approval documentation.
2) SSM Modeling: Applicants must conduct dispersion modeling for the total short term emissions during routine or predictable startup, shutdown, or maintenance (SSM) using realistic worst case scenarios following guidance from the Air Quality Bureau's dispersion modeling section. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions modeling requirements.
3) Title V (20.2.70 NMAC) ambient impact analysis: Title V applications must specify the construction permit and/or Title V Permit number(s) for which air quality dispersion modeling was last approved. Facilities that have only a Title V permit, such as landfills and air curtain incinerators, are subject to the same modeling required for preconstruction permits required by 20.2.72 and 20.2.74 NMAC.

What is the purpose of this application?	Enter an X for each purpose that applies
New PSD major source or PSD major modification (20.2.74 NMAC). See #1 above.	
New Minor Source or significant permit revision under 20.2.72 NMAC (20.2.72.219.D NMAC). See #1 above. **Note:** Neither modeling nor a modeling waiver is required for VOC emissions.	x
Reporting existing pollutants that were not previously reported.	
Reporting existing pollutants where the ambient impact is being addressed for the first time.	
Title V application (new, renewal, significant, or minor modification. 20.2.70 NMAC). See #3 above.	
Relocation (20.2.72.202.B.4 or 72.202.D.3.c NMAC)	
Minor Source Technical Permit Revision 20.2.72.219.B.1.d.vi NMAC for like-kind unit replacements.	
Other: i.e. SSM modeling. See #2 above.	
This application does not require modeling since this is a No Permit Required (NPR) application.	
This application does not require modeling since this is a Notice of Intent (NOI) application (20.2.73 NMAC).	
This application does not require modeling according to 20.2.70.7.E(11), 20.2.72.203.A(4), 20.2.74.303, 20.2.79.109.D NMAC and in accordance with the Air Quality Bureau's Modeling Guidelines.	

Check each box that applies:

☐ See attached, approved modeling **waiver for all** pollutants from the facility.
☐ See attached, approved modeling **waiver for some** pollutants from the facility.
☒ Attached in Universal Application Form 4 (UA4) is a **modeling report for all** pollutants from the facility.
☐ Attached in UA4 is a **modeling report for some** pollutants from the facility.
☐ No modeling is required.

Section 17

Compliance Test History

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

To show compliance with existing NSR permits conditions, you must submit a compliance test history. The table below provides an example.

To save paper and to standardize the application format, delete this sentence and the samples in the Compliance Test History Table, and begin your submittal for this attachment on this page.

Compliance Test History Table **(Modify this sample table to suit your facility)**

Unit No.	Test Description	Test Date
N-EP-03	PM PM PM PM	Facility has tested annually and submitted test report to the NMED promptly.
N-EP-01	PM, NOx, CO PM PM PM PM	Facility has tested annually and submitted test report to the NMED promptly.
N-EP-02	PM, NOx, CO PM PM PM	Facility has tested annually and submitted test report to the NMED promptly.

Section 20

Other Relevant Information

Other relevant information. Use this attachment to clarify any part in the application that you think needs explaining. Reference the section, table, column, and/or field. Include any additional text, tables, calculations or clarifying information.

Additionally, the applicant may propose specific permit language for AQB consideration. In the case of a revision to an existing permit, the applicant should provide the old language and the new language in track changes format to highlight the proposed changes. If proposing language for a new facility or language for a new unit, submit the proposed operating condition(s), along with the associated monitoring, recordkeeping, and reporting conditions. In either case, please limit the proposed language to the affected portion of the permit.

Attached are drawings of the layout of the HS project structures and process flow which illustrate the process and equipment.

Additionally, Intrepid is seeking to obtain authorization for the use of nonroad engines up to a combined total of 1000 HP to allow the use of nonroad engines in instances where power may be needed in an area for a short period of time. Within the proposed operational flexibility area the emissions were based on the rental engines being a Tier 2 engine or above in order to be brought onsite and used. Based on the size category, the engines will have a maximum emissions factor as summarized below. Engines brought on-site will be certified at the Tier 2 level or higher.

Rated Power (kW)	Tier	Model Year	NMHC (g/kW-hr)	NMHC + NOx (g/kW-hr)	NOx (g/kW-hr)	PM (g/kW-hr)	CO (g/kW-hr)	Typ Stack Height (ft)
kW < 19	2	2005-2007	-	7.5	-	0.80	6.6	None
19 ≤ kW < 37	2	2004-2007	-	7.5	-	0.60	5.5	2.0
37 ≤ kW < 56	2	2004-2007	-	7.5	-	0.40	5.0	3.0
56 ≤ kW < 75	2	2004-2007	-	7.5	-	0.40	5.0	4.0
75 ≤ kW < 130	2	2003-2006	-	6.6	-	0.30	5.0	4.0
130 ≤ kW < 225	2	2003-2005	-	6.6	-	0.20	3.5	6.0
225 ≤ kW< 450	2	2001-2005	-	6.4	-	0.20	3.5	11.0
450 ≤ kW < 560	2	2002-2005	-	6.4	-	0.20	3.5	14.0
560 ≤ kW < 900	2	2006-2010	-	6.4	-	0.20	3.5	16.0

Section 22: Certification

Company Name: Intrepid Potash – New Mexico, LLC

I, Roy Torres, hereby certify that the information and data submitted in this application are true and as accurate as possible, to the best of my knowledge and professional expertise and experience.

Signed this 16th day of DECEMBER, 2021, upon my oath or affirmation, before a notary of the State of New Mexico.

Roy Torres
*Signature

12-16-21
Date

Roy Torres
Printed Name

Operations Manager
Title

Scribed and sworn before me on this 16th day of DECEMBER, 2021.

My authorization as a notary of the State of New Mexico expires on the 6th day of NOVEMBER, 2025.

OFFICIAL SEAL
ROBIN L. HUGHES
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 11/06/2025

Robin L. Hughes
Notary's Signature

12-16-2021
Date

ROBIN L. HUGHES
Notary's Printed Name

*For Title V applications, the signature must be of the Responsible Official as defined in 20.2.70.7.AE NMAC.

Universal Application 4

Air Dispersion Modeling Report

Refer to and complete Section 16 of the Universal Application form (UA3) to assist your determination as to whether modeling is required. If, after filling out Section 16, you are still unsure if modeling is required, e-mail the completed Section 16 to the AQB Modeling Manager for assistance in making this determination. If modeling is required, a modeling protocol would be submitted and approved prior to an application submittal. The protocol should be emailed to the modeling manager. A protocol is recommended but optional for minor sources and is required for new PSD sources or PSD major modifications. Fill out and submit this portion of the Universal Application form (UA4), the "Air Dispersion Modeling Report", only if air dispersion modeling is required for this application submittal. This serves as your modeling report submittal and should contain all the information needed to describe the modeling. No other modeling report or modeling protocol should be submitted with this permit application.

16-A: Identification

1	Name of facility:	North Compaction Plant
2	Name of company:	Intrepid Potash – New Mexico, LLC
3	Current Permit number:	P261
4	Name of applicant's modeler:	Bruce Ferguson
5	Phone number of modeler:	(601) 824-1860
6	E-mail of modeler:	bferguson@fce-engineering.com

16-B: Brief

1	Was a modeling protocol submitted and approved?	Yes☐	No☒
2	Why is the modeling being done?	Adding New Equipment	
3	Describe the permit changes relevant to the modeling.		
	Adding loadout scrubber stack and nonroad engines, widening the public road buffer for operation flexibility.		
4	What geodetic datum was used in the modeling?	NAD83	
5	How long will the facility be at this location?	indefinite	
6	Is the facility a major source with respect to Prevention of Significant Deterioration (PSD)?	Yes☐	No☒
7	Identify the Air Quality Control Region (AQCR) in which the facility is located	155	

8	List the PSD baseline dates for this region (minor or major, as appropriate).	
	NO2	March 16, 1988
	SO2	July 28, 1978
	PM10	February 20, 1979
	PM2.5	November 11, 2013
9	Provide the name and distance to Class I areas within 50 km of the facility (300 km for PSD permits).	
	None	
10	Is the facility located in a non-attainment area? If so describe below	Yes☐ No☒
11	Describe any special modeling requirements, such as streamline permit requirements.	
	None	

16-C: Modeling History of Facility

1 Describe the modeling history of the facility, including the air permit numbers, the pollutants modeled, the National Ambient Air Quality Standards (NAAQS), New Mexico AAQS (NMAAQS), and PSD increments modeled. (Do not include modeling waivers).

Pollutant	Latest permit and modification number that modeled the pollutant facility-wide.	Date of Permit	Comments
CO		2014	
NO_2		2014	
SO_2			
H_2S			
PM2.5		2018	
PM10		2018	
Lead			
Ozone (PSD only)			
NM Toxic Air Pollutants (20.2.72.402 NMAC)			

16-D: Modeling performed for this application

1 For each pollutant, indicate the modeling performed and submitted with this application.
Choose the most complicated modeling applicable for that pollutant, i.e., culpability analysis assumes ROI and cumulative analysis were also performed.

Pollutant	ROI	Cumulative analysis	Culpability analysis	Waiver approved	Pollutant not emitted or not changed.
CO	☒	☐	☐	☐	☐
NO_2	☒	☒	☐	☐	☐
SO_2	☒	☐	☐	☐	☐
H_2S	☐	☐	☐	☐	☐

	PM2.5	☒	☒	☐	☐	☐
	PM10	☒	☒	☐	☐	☐
	Lead	☐	☐	☐	☐	☐
	Ozone	☐	☐	☐	☐	☐
	State air toxic(s) (20.2.72.402 NMAC)	☐	☐	☐	☐	☐

16-E: New Mexico toxic air pollutants modeling N/A

1	List any New Mexico toxic air pollutants (NMTAPs) from Tables A and B in 20.2.72.502 NMAC that are modeled for this application.

List any NMTAPs that are emitted but not modeled because stack height correction factor. Add additional rows to the table below, if required.

2 Pollutant	Emission Rate (pounds/hour)	Emission Rate Screening Level (pounds/hour)	Stack Height (meters)	Correction Factor	Emission Rate/ Correction Factor

16-F: Modeling options

1	Was the latest version of AERMOD used with regulatory default options? If not explain below.	Yes☒	No☐

16-G: Surrounding source modeling

1	Date of surrounding source retrieval	MergeMaster June 7, 2021

If the surrounding source inventory provided by the Air Quality Bureau was believed to be inaccurate, describe how the sources modeled differ from the inventory provided. If changes to the surrounding source inventory were made, use the table below to describe them. Add rows as needed.

2 AQB Source ID	Description of Corrections
Release height for haul roads listed as 32 ft were adjusted to 11.1 ft as listed for large trucks in guideline	
	208R8, 34920A1, 26896A1, 38572R3, 38189A1, 38235R1, 29939R1, 29939R2, 29939R21, 29939R35, 39375A1, 38106A1, 39925A1, 38899A1, 38098A1, 38031R3, 37362A1, 38947A1, 196R29, 196R52, 40134A1, 40132A1, 39924A1, 39769A1, 39695A1, 39695A2, 39043A1, 39699A1, 39689R4, 39690A1, 38004A1, 39156R4, 36008A1
SSM PM2.5 emissions, listed as sand blasting, were adjusted based on the applications on NMED website	
	32582R2, 31610R8
39225@1	Changed from a volume source to a point source for a baghouse in NO2 modeling based on in the application on the NMED website.
208E28	Emissions reduced to zero as they already appeared to have been accounted for in 208E27
208	Emission point locations were changed to the coordinates in the most recent modeling file submitted.
30519	E2, E3, and E4 emission rates changed from 2.1 lb/hr to 3.6 lb/hr per the application. E5 was changed from a volume source to a flare source as presented in the application.

	26896R4	Effective diameter changed to 9.08 m based on information in application on NMED website.
	35452R2	SSM set to zero. Application on NMED website did not list SSM NOx emissions.
	33332R2	Changed from volume source to flare for SSM emissions. Effective diameter estimated based on emission rate NOx factor of 0.138 lb/MMBtu and MW of 26

16-H: Building and structure downwash

1	How many buildings are present at the facility?	28		
2	How many above ground storage tanks are present at the facility?	none		
3	Was building downwash modeled for all buildings and tanks? If not explain why below.		Yes☒	No☐
4	Building comments			

16-I: Receptors and modeled property boundary

1	"Restricted Area" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with a steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area. A Restricted Area is required in order to exclude receptors from the facility property. If the facility does not have a Restricted Area, then receptors shall be placed within the property boundaries of the facility. Describe the fence or other physical barrier at the facility that defines the restricted area.						
	Fence and terrain features						
2	Receptors must be placed along publicly accessible roads in the restricted area. Are there public roads passing through the restricted area?					Yes☐	No☒
3	Are restricted area boundary coordinates included in the modeling files?					Yes☒	No☐
4	Describe the receptor grids and their spacing. The table below may be used, adding rows as needed.						
	Grid Type	Shape	Spacing	Start distance from restricted area or center of facility	End distance from restricted area or center of facility	Comments	
	Cartesian	Square	50	0	1.6 km		
	Cartesian	Square	100	1.6 km	2.2 km		
	Cartesian	Square	250	2.2 km	13 km		
5	Describe receptor spacing along the fence line.						
	50 meter						
	Describe the PSD Class I area receptors.						

6	None

16-J: Sensitive areas

1	Are there schools or hospitals or other sensitive areas near the facility? If so describe below. This information is optional (and purposely undefined) but may help determine issues related to public notice.	Yes☐	No☒
3	The modeling review process may need to be accelerated if there is a public hearing. Are there likely to be public comments opposing the permit application?	Yes☐	No☒

16-K: Modeling Scenarios

1	Identify, define, and describe all modeling scenarios. Examples of modeling scenarios include using different production rates, times of day, times of year, simultaneous or alternate operation of old and new equipment during transition periods, etc. Alternative operating scenarios should correspond to all parts of the Universal Application and should be fully described in Section 15 of the Universal Application (UA3).		
2	Which scenario produces the highest concentrations? Why?		
3	Were emission factor sets used to limit emission rates or hours of operation? (This question pertains to the "SEASON", "MONTH", "HROFDY" and related factor sets, not to the factors used for calculating the maximum emission rate.)	Yes☐	No☒
4	If so, describe factors for each group of sources. List the sources in each group before the factor table for that group. (Modify or duplicate table as necessary. It's ok to put the table below section 16-K if it makes formatting easier.) Sources:		

5

Hour of Day	Factor	Hour of Day	Factor								
1		13									
2		14									
3		15									
4		16									
5		17									
6		18									
7		19									
8		20									
9		21									
10		22									
11		23									
12		24									

If hourly, variable emission rates were used that were not described above, describe them below.

	Hourly variable emissions for surrounding sources were used as provided by merge master file.		
6	Were different emission rates used for short-term and annual modeling? If so describe below.	Yes☐	No☒

16-L: NO_2 Modeling

1	Which types of NO_2 modeling were used? Check all that apply.	
	☒	ARM2
	☐	100% NO_X to NO_2 conversion
	☐	PVMRM
	☐	OLM
	☐	Other:
2	Describe the NO_2 modeling.	
	ARM2 was used in significance and cumulative modeling. Surrounding sources were modeled instead of adding background.	
3	Were default NO_2/NO_X ratios (0.5 minimum, 0.9 maximum or equilibrium) used? If not describe and justify the ratios used below.	Yes☒ / No☐
4	Describe the design value used for each averaging period modeled.	
	1-hour: Choose an item. Annual: Choose an item.	

16-M: Particulate Matter Modeling

1	Select the pollutants for which plume depletion modeling was used.	
	☐	PM2.5
	☐	PM10
	☒	None
2	Describe the particle size distributions used. Include the source of information.	
3	Does the facility emit at least 40 tons per year of NO_X or at least 40 tons per year of SO_2? Sources that emit at least 40 tons per year of NO_X or at least 40 tons per year of SO_2 are considered to emit significant amounts of precursors and must account for secondary formation of PM2.5.	Yes☒ / No☐
4	Was secondary PM modeled for PM2.5?	Yes☐ / No☒
5	If MERPs were used to account for secondary PM2.5 fill out the information below. If another method was used describe below.	

NO_X (ton/yr)	SO_2 (ton/yr)	$[PM2.5]_{annual}$	$[PM2.5]_{24\text{-hour}}$

16-N: Setback Distances

1	Portable sources or sources that need flexibility in their site configuration requires that setback distances be determined between the emission sources and the restricted area boundary (e.g. fence line) for both the initial location and future locations. Describe the setback distances for the initial location.
2	Describe the requested, modeled, setback distances for future locations, if this permit is for a portable stationary source. Include a haul road in the relocation modeling.

16-O: PSD Increment and Source IDs

1	The unit numbers in the Tables 2-A, 2-B, 2-C, 2-E, 2-F, and 2-I should match the ones in the modeling files. Do these match? If not, provide a cross-reference table between unit numbers if they do not match below.	Yes☐	No☒

Unit Number in UA-2	Unit Number in Modeling Files
	See x-ref below

2	The emission rates in the Tables 2-E and 2-F should match the ones in the modeling files. Do these matches? If not, explain why below.	Yes☐	No☒
	Application lists the emissions for the worst case nonroad Tier II requirements, i.e., the smaller engines. The controlling scenario is one engine at 1000 HP. The engine was modeled at the Tier II emission rate for the size unit.		
3	Have the minor NSR exempt sources or Title V Insignificant Activities" (Table 2-B) sources been modeled?	Yes☐	No☒

4 Which units consume increment for which pollutants?
All current sources at the facility consume PM10, SO2 and NOx and are not listed below.
EP-03 was permitted before the PM2.5 baseline date and emission reduced after the baseline date.

Unit ID	NO_2	SO_2	PM10	PM2.5
N-EP-08			X	X
N-EP-09	X	X	X	X
N-EP-04/05			X	X
N-EP-03			X	X
N-EP-07			X	X

5	PSD increment description for sources. (for unusual cases, i.e., baseline unit expanded emissions after baseline date).	The old compaction plant was in existence prior to the PM_{10} baseline date. The earliest determined emissions for the old compaction plant estimated below were included as PM10 expanding emissions. The TSP emissions are summarized below, PM_{10} was estimated at 80% of the TSP emissions, which is consistent with AP-42 Appendix B Table B.2.2. particle size distributions for mechanically generated processed ores and nonmetallic minerals.

Source	Particulate Emission Rate	
	lbs/hr	tons/year
Ore Drying	26	11
Product Drying	112	475
Screening	12	50
TOTAL	**150**	**536**

PM10 expanding emissions are in the AERMOD input files as negative emissions.

Scrubber for Truck Dump, permitted as N-EP-03, was constructed and permitted prior to the minor source baseline date of November 11, 2013. A reduction in the PM2.5 emissions from N EP-03 is proposed and will expand PM2.5 increment by 0.9 lb/hr. The expansion was accounted for in the model by including a source EP_03B with the baseline emissions as negative and a source EP_03 with the proposed emissions.

6	Are all the actual installation dates included in Table 2A of the application form, as required? This is necessary to verify the accuracy of PSD increment modeling. If not please explain how increment consumption status is determined for the missing installation dates below.	Yes☒	No☐

Permit ID	Description	Model ID
N-EP-01	Rotary Dryer	EP_01
N-EP-02	Rotary PreHeater	EP_02
N-EP-03	Truck Receiving Pit with Engart Type 27 Scrubber	EP_03
N-EP-04 & N-EP-05	Loadout	TD_1, TD_2, RD_1, RD_2
	Intraplant Activities	INTRA1-INTRA5
	Dribble Bin	DB2
	HS Rejects	HSR
N-EP-06	Process Building Four Scrubbers Internal Exhaust	COMPACT
N-EP-07	Process Building One Scrubber External Exhaust	EP_07
N-F1	Fugitive Emissions - Paved Road	PR1-PR15
N-F22	Fugitive Emissions - Unpaved Road	UP_1-UP_72
N-EmergDiesel FWPE	Emergency Diesel Engine	ENGINE
N-F2-F19	Domes, material transfer	D_1-D_5
N-EP-08	HS Process Transfer Dust Collector	EP-08
N-EP-09	Non-road Engines	EP-09

16-P: Flare Modeling N/Z

1	For each flare or flaring scenario, complete the following			
	Flare ID (and scenario)	Average Molecular Weight	Gross Heat Release (cal/s)	Effective Flare Diameter (m)

16-Q: Volume and Related Sources

1	Were the dimensions of volume sources different from standard dimensions in the Air Quality Bureau (AQB) Modeling Guidelines? If not please explain how increment consumption status is determined for the missing installation dates below.	Yes☒	No☐
2	Describe the determination of sigma-Y and sigma-Z for fugitive sources.		
	Followed guideline for alternating volume sources. Release height for large trucks used from guideline.		
3	Describe how the volume sources are related to unit numbers. Or say they are the same.		
	See cross reference table above		
4	Describe any open pits.		
	N/Z		
5	Describe emission units included in each open pit.		
	N/A		

16-R: Background Concentrations

1	Were NMED provided background concentrations used? Identify the background station used below. If non-NMED provided background concentrations were used describe the data that was used.	Yes☐	No☐
	CO: Choose an item.		
	NO_2: Choose an item.		
	PM2.5: Hobbs-Jefferson (350450019)		
	PM10: Hobbs-Jefferson (350250008)		
	SO_2: Choose an item.		
	Other:		
	Comments:		
2	Were background concentrations refined to monthly or hourly values? If so describe below.	Yes☐	No☐

16-S: Meteorological Data

1	Was NMED provided meteorological data used? If so select the station used. Artesia	Yes☒	No☐

2	If NMED provided meteorological data was not used describe the data set(s) used below. Discuss how missing data were handled, how stability class was determined, and how the data were processed.		

16-T: Terrain

1	Was complex terrain used in the modeling? If not, describe why below.	Yes☐	No☒
2	What was the source of the terrain data?		
	1 deg NED data downloaded through AERMOD-View		

16-U: Modeling Files

Describe the modeling files:

File name (or folder and file name)	Pollutant(s)	Purpose (ROI/SIA, cumulative, culpability analysis, other)

16-V: PSD New or Major Modification Applications

1	A new PSD major source or a major modification to an existing PSD major source requires additional analysis. Was preconstruction monitoring done (see 20.2.74.306 NMAC and PSD Preapplication Guidance on the AQB website)?	Yes☐	No☐
2	If not, did AQB approve an exemption from preconstruction monitoring?	Yes☐	No☐
3	Describe how preconstruction monitoring has been addressed or attach the approved preconstruction monitoring or monitoring exemption.		

4	Describe the additional impacts analysis required at 20.2.74.304 NMAC.		
5	If required, have ozone and secondary PM2.5 ambient impacts analyses been completed? If so describe below.	Yes☐	No☐

16-W: Modeling Results

1	If ambient standards are exceeded because of surrounding sources, a culpability analysis is required for the source to show that the contribution from this source is less than the significance levels for the specific pollutant. Was culpability analysis performed? If so describe below.	Yes☐	No☐
2	Identify the maximum concentrations from the modeling analysis. Rows may be modified, added and removed from the table below as necessary.		

Pollutant, Time Period and Standard	Modeled Facility Concentration ($\mu g/m^3$)	Modeled Concentration with Surrounding Sources ($\mu g/m^3$)	Secondary PM ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Cumulative Concentration ($\mu g/m^3$)	Value of Standard ($\mu g/m^3$)	Percent of Standard	Location		
								UTM E (m)	UTM N (m)	Elevation (ft)
CO 1-hr SIA	231.15176	N/A	N/A	N/A	231.15176	2000	11.6	612,666	3,604,000	1055.06
CO 8-hr SIA	111.54513	N/A	N/A	N/A	111.54513	500	22.3	612,516	3,604,100	1054.09
SO2 1-hr NAAQS	73.36792	N/A	N/A	47	120.4	196.4	61.3	612,666	3,604,000	1055.06
SO2 Annual NMAAQS	1.82999	N/A	N/A	0.67	2.5	52.4	4.7	612,516	3,604,100	1054.09
SO2 3-hr PSD	50.95876	N/A	N/A	47*	98.0	512	19.1	612,516	3,604,100	1054.09
SO2 24-hr PSD	17.36973	N/A	N/A	47*	64.4	91	70.8	612,516	3,604,100	1054.09
SO2 Annual PSD	1.82999	N/A	N/A	0.67	2.5	20	12.5	612,516	3,604,100	1054.09
NO2 1-hr NAAQS	176.76773	186.48827	N/A	N/A	186.48827	188.03	99.2	612,666	3,604,000	1055.06
NO2 Annual NMAAQS	7.11732	11.09765	N/A	N/A	11.09765	94.02	11.8	613,616	3,604,700	1059.84
NO2 Annual PSD	7.11732	11.05537	N/A	N/A	11.05537	25	44.2	613,616	3,604,700	1059.84
PM10 24-hr NAAQS	38.79305	39.29358	N/A	37.3	76.6	150	51.1	612,574.22	3,604,108.38	1054.69
PM10 24-hr PSD	16.49971	17.60709	N/A	N/A	17.60709	30	58.7	612,641.89	3,604,104.34	1054.98
PM10 Annual PSD										
PM2.5 24-hr NAAQS										
PM2.5 Annual NAAQS										
PM2.5 24-hr PSD										
PM2.5 Annual PSD										

***98th Percentile 1-hr monitored value conservatively used for 3-hr and 24-hr increment background.**

16-X: Summary/conclusions	
1	A statement that modeling requirements have been satisfied and that the permit can be issued.
	Modeling performed has demonstrated that the ambient air standards are met.